

1488 f. 22

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A  
DISSERTATION  
UPON THE  
ORDERS of COLUMNS,  
AND THEIR  
APPENDAGES;  
THE WHOLE  
CONSTITUTING  
THE  
ORDERS of ARCHITECTURE:

Interspersed with

A brief Account of the various Kinds of  
INTERCOLUMNATION  
Observed by the ANTIENTS:

AND

Illustrated with proper Draughts from three and Twenty  
Copper Plates Engraved by Mr. *Paul Fourdrinier*.

COMPILED

For the Use of ARTIFICERS in the BUILDING TRADES.

By JOHN WOOD, Architect.

L O N D O N :

Printed by JAMES BETTENHAM, in the Year MDCCL:

And Sold by J. LEAKE at BATH.

# DISSEMINATION OF THE ORDERS OF COLUMBUS AND THEIR APPENDAGES; THE WHOLE CONSTITUTING THE ORDER OF ARCHITECTURE.



INTERC  
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 AND  
 Illustrated with proper Diagrams from three and twenty  
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**DISSERTATION**  
**UPON THE**  
**ORDERS of COLUMNS,**  
**AND THEIR**  
**APPENDAGES.**

**N**OTHING is more certain than that the Ornament and Majesty of Buildings intended to attract the Admiration of the intelligent Part of Mankind arises from the Correctness of the Orders in which they are erected : But modern Architects, who have wrote of those essential Parts of a Rich and Majestick Edifice, differing from one another in the Proportions which Columns and their Appendages ought to have, have thereby involved the Orders in such Confusion and Disorder, that People who have no Taste at all for a Science that makes the Queen of the Beauteous Arts, must naturally conclude that they had no certain



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Rule to go by in their Compositions;  
and that ORDER in ARCHITECTURE was  
only a Word mistaken for CAPRICE itself.

The great Statesman of *France*, MONSIEUR DE NOYERS, observing this Confusion when He, in the Execution of his high Office of Superintendant of the Royal Houses and other publick Edifices of that Kingdom, began to cultivate the Art of Building in the *Gallick* Dominions, forthwith laid his Commands upon the learned *Roland Freart, Sieur de Chambray*, to collect such Things as were necessary for Restoring the ORDERS of COLUMNS, and their APPENDAGES, to their supremest Degree of Perfection, that the Workmen of *France* might be thereby enabled to Execute those noble Parts of a Correct and Beautiful Structure, according to the primitive Rules of the Antients, and by those Means give Splendour and Magnificence to the whole Kingdom in her WORKS of ARCHITECTURE.

This gave Birth to the Book now bearing the Title of, A PARALLEL of the ANTIENT ARCHITECTURE with the MODERN;



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the Original of which was brought to its Perfection by the Interposition of Monsieur *Errard*; a Gentleman so eminent for his Knowledge in the Arts and Sciences, that the *Italians* themselves often elected him President of their celebrated Academy for Designing in the City of *Rome*.

The Illustrious Author of the Work thus Perfected, hath therein given us not only Examples in Every Order, supposed to have been accurately Copied from the most renowned Works of Antiquity at that time existing in *Rome*, and other Places; but the Draughts of all the Orders as they had been Adjusted and Published by no less than ten different Modern Architects.

The PARALLEL made its first Appearance in *France* in the Year 1650; or a Year or two before the Death of our famous *British* Architect, *Inigo Jones*, Esq; Surveyor General of the King's Works; nor was it long in acquiring such Fame as excited the *English* to have it rendered into their Language for the Use of Workmen; and for that Purpose Mr. *Evelyn* was prevailed upon to begin a Translation of  
of

of it in or about the Year 1654: But that learned Gentleman soon laying his Work aside, and not Resuming it till after the Establishment of the *Royal Society* in *London*; it was then that he, Commiserating the few Assistances the *British* Artificers of those Days had for the right Execution of Columns and their Appendages, compared with what were extant in other Countries, was Inspired with a noble Resolution to make the Parallel speak *English*; and from an Expectation that this Book would enable Workmen to banish those *Gothick* Triflings, in the Composition of the ORDERS, which had rendered the best Structures of the Age absurd and Ridiculous to Men of Taste and Understanding in the Liberal Sciences, he Published it in the Year 1664.

Everlasting Honour had most undoubtedly attended *Freart's* PARALLEL, and the Work might have so far answered the great and important End proposed by such a large Collection, as to have made the Author pursue his Researches, if the Examples taken from the antient Buildings had been justly copied; but as they were not, the PARALLEL, in its Composition, was

was Erroneous ; and the Errors incessantly opening themselves as those sumptuous Edifices advanced, which the Grand Monarch of *France* designed to adorn his Kingdom with, at length it determined Monsieur *Errard* to order some of the Disciples of the Royal Academy of Architecture, Painting, and Sculpture at *Paris*, while they should be perfecting themselves in their Studies in the like Academy at *Rome*, to Measure and Delineate the Fragments of the Antient Buildings of that City with all the Accuracy possible, that the Defects in the PARALLEL might be thereby supplied, and Learned Men furnished with proper Examples to enable them to Restore the ORDERS of COLUMNS, and their APPENDAGES, to the Perfection so earnestly sought after by the *Sieur de Chambray*.

This Task fell principally upon Monsieur *Desgodetz*, who, for two Years, had studied Architecture in the Royal Academy at *Paris*, over which Monsieur *Errard* was Director, as well as over the like Seminary founded by the *French* King at *Rome* ; and our Student setting out for  
that



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that City in the Year 1674, spent sixteen Months, after his Redemption from Pirates, and Arrival there, in taking proper Dimensions, and making the Plans, Elevations, and Profiles of the Remains of the Antient Buildings; notwithstanding the Ground was opened to Measure what lay Buried, and proper Machines erected to enable him to come at the Size of every thing above his own Reach.

While this laborious Architect was thus employed in *Italy*, other Learned Men were, by the King's particular Order, sent into *Egypt*, *Greece*, *Syria*, *Persia*, and every other Part of the World, where there were any Fragments remaining of the Curious Works of the antient Architects, with proper Instructions to Survey them, and with Assurances of great Rewards for what they should Collect, that nothing might be wanting to give the highest Perfection to the Royal Edifices of *France*; and, as the celebrated Author of the *French* Translation of the Works of *Vitruvius* hath informed us, render the King's Buildings PRECEPTS OF ARCHITECTURE to all Posterity.

The



The ORDERS of COLUMNS. 9

The Task put upon *Desgodetz* was performed with so much JUDGMENT and NICETY, that, upon his Return to *Paris*, his Draughts, passing a strict Examination, were ordered to be Engraved and Printed at the King's Expence; and in the Year 1682, the Publick were made Partakers of a Work that will for ever do Honour to the *French* Nation, and Contribute more towards the Restoration of the ORDERS of ARCHITECTURE, than all that appears to have been wrote or collected, by former Architects, upon the same Subject.

This Monsieur *Perrault* seems to have been well convinced of, when he, in the Year 1683, undertook the Restoration of the ORDERS of COLUMNS and their APPENDAGES, under the Patronage of the great COLBERT, Prime Minister of State to LEWIS the FOURTEENTH, and Superintendant and Surveyor General of His Majesty's Buildings and Gardens, as well as of the Arts and Manufactures of *France*: And in pursuance of an Undertaking in which so many eminent Men had before embarked themselves, *Perrault* composed a TREATISE upon the several ORDERS, B wherein

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wherein that learned Architect, following the Doctrine of the Antients, as delivered to us in the WORKS he had Translated and Explained, attempted to ground the General Proportions of Columns on those of the Human Body; and he had most undoubtedly succeeded if he had confined those Proportions to the Orders commonly attributed to *Grecian* Original, and had not attempted the Establishment of others, by Mean Proportions deduced from such Columns of the same Order, or their Appendages, as, by their differing from one another in the Writings of Architects, or the Works of Antiquity, indicated them to have been all imperfect.

This TREATISE, deficient as it is of the great and important End sought after, was nevertheless thought worthy of an *English* Translation, to give our Workmen a better Idea of the ORDERS than they could receive by the PARALLEL itself; and it must be Confessed that it led them nearer to the primitive Rules of the Antients for the Execution of COLUMNS, and their APPENDAGES, than any other Book had done.

The

The ORDERS of COLUMNS. II

The great Care and the indefatigable Pains of the Learned, as well as Powerful, during the last hundred Years, to Restore the ORDERS of ARCHITECTURE, is the highest Demonstration that can be given of the vast Importance of those ORDERS: They were the essential Parts of those Stupendous Works that made the chief among the WONDERS of the WORLD! And these Circumstances being well considered by such *British* Artificers as may be concerned in Buildings where COLUMNS, and their APPENDAGES, shall be introduced, an Emulation must naturally arise in them to Execute, if possible, the ORDERS, bearing *Grecian* Names, in the same Perfection they appeared when the *Grecian* Empire, by the Excellency of her PUBLICK STRUCTURES, shone in all her Glory.

The material Parts of some of those Structures were brought to *Rome* upon the Decline of one Empire, and the Rise of the other; and there they were blended together without the least Regard to Harmony, Proportion, or Order, as by the Draughts and Measures of Monsieur *Desgodetz*,  
B 2 will



will manifestly appear to such as are well enough skilled in ARCHITECTURE to Judge of dissimilar Parts in the Composition of the ORDERS.

This is one Cause why we are not to expect COLUMNS, and their APPENDAGES, in a perfect State in the Remains of the Antient Buildings of *Rome*: And another Cause, more Material, is, the new Working, or even Polishing, such Ornaments as were defaced in taking down, or in Transporting from Place to Place: For Beauty and Proportion in a fine Figure are inseparable; and an Invasion of one, equally affects the other; of which *Plutarch* gives us an incontrovertable Instance in the SHAFTS of those COLUMNS which the Emperor DOMITIAN caused to be made at *Athens*, of an excellent Proportion, but repolishing them at *Rome*, they became too slender, and so lost all their Beauty and Majesty.

The same must unavoidably happen to every individual Member of a Base, Capital, Architrave, or Cornice; and more especially to such as, in their Profiles, are formed of Curv'd Lines answering Sextants,



tants, Quadrants, or any other Portions of the Periphery, or Out Line of a Circle: For when the Contour of a Member, intended to have a certain Effect, is once altered, that Member loses all its Spirit; and the Antients were so scrupulously exact in the Formation of the least Member belonging to any of the ORDERS of ARCHITECTURE, that its Proportion was founded upon the justest Reason; and its Shape was made so expressive of what it Represented, as well as so agreeable to the Eye, that, in a Combination of Members, there was a certain Harmony Productive of a Beauty which Contributed more towards rendering their Works ADMIRABLE, or rather ASTONISHING, than even Magnitude itself.

Let us therefore exhaust our utmost Endeavours in the Search of those Precepts which raised the ORDERS of ARCHITECTURE to that amazing Degree of Excellence the *Grecians* themselves Soared after: Let us abandon all Compositions that have the least Tendency to vitiate the ORDERS bearing GRECIAN NAMES: And when we do this, GREAT-BRITAIN will,

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will, of course, be soon enriched with such exquisite Structures as may serve for Models to Posterity, and draw People from the Continent to View, Admire, and Copy them, as the *British* Temples appear to have done in the antient Times of Paganism.

For notwithstanding Novelty hath, in Ages past, been so prevalent in our Island as to lead some to invert the Columns of their Buildings, by setting them upon their Heads, instead of their Feet; yet learned *Englishmen* can't be Taxed, like People of other Nations, with Inventing NEW ORDERS: And it must appear quite astonishing to any considerate Man, that after the *French* had taken all the Pains in the Power of Men, disdaining Difficulties, in the Pursuit of their Labours, to enable them to RESTORE the ORDERS of ARCHITECTURE, the very Designer and Engraver to the King's Cabinet, one who was a Learned Member of the Royal Academy of Arts and Sciences, and one who was honoured with the Knighthood of the Empire for his Ingenuity and Skill, should take upon him to Invent two NEW ORDERS:

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ORDERS: But so it happened! and the Inventor, the famous *Sebastian le Clerc*, calling one of his Compositions the SPANISH ORDER; to the other he prefixed the Name of his own Nation; and by enriching the Freeze with Crowns, each encircling a shining Sun, he concluded that Mankind would easily apprehend that he had Consecrated his FRENCH ORDER to the Glory of the GRAND MONARCH, his Royal Master.

Of the RISE and PROGRESS of the ORDERS of COLUMNS, and their APPENDAGES, in the Eastern Nations of the World.

COLUMNS, or Round Pillars, are no more than a beautiful Representation of the POSTS of such Timber Cottages as Necessity at first led Men to erect: And their APPENDAGES are no more than a like Representation of the other chief Parts of a Timber Building; such as the SILLS whereon the POSTS are rested, the FRAME, above, that holds those POSTS together, and the ENDS of That which makes the Covering of the Edifice.



Now the Posts of the primitive Cottages having been imitated by the Antients, in their superior Structures, either as Dead or Living Trunks of shrowded Trees, from thence arose the DORICK COLUMN, representing the TRUNK of a DEAD TREE; and the CORINTHIAN COLUMN, representing the TRUNK of a LIVING TREE.

These are the Genuine and only ORDERS of COLUMNS: But nevertheless to the first the Antients added some Ornaments, for a Crowning, representing certain parts of Dead Animals; and from thence arose the IONICK COLUMN, whereby a third ORDER was Constituted.

From hence it may be perceived that Posts, like those of a Timber Cottage, Ornamented so as to take the Name of ORDER, must still represent the TRUNKS of TREES; and therefore the Shafts of them should not be divided into Parts to resemble any other Thing whatsoever; thick Cheeses, piled upon one another, especially; which one would imagine the late Sir *John Vanbrugh* to have imitated in the Columns of many of the Buildings Designed by him, if the Draughts for the  
the



the *French* Palace of *Charleval*, now to be seen in the Collection of the Capital Buildings of *France*, Published by one *James Androvet*, an Architect of some Eminence in the Reign of *Charles* the Ninth, had not furnished him with an Example: And it was from those very Draughts that our Learned Knight seems to have received the peculiar Taste in Architecture, which hath rendered his Works so remarkable as to become the Subject of the Poets, as well as of the Historians Ridicule.

The time when Posts were first made in such Forms as to obtain the Name of Order in Building, was so Early as the Days of *Moses*, when he, as Sacred History informs us, erected the Tabernacle, with its Court, in the midst of the Camp of *Israel*, by the Direction of God himself, and by the Hands of Inspired Workmen: For in that renowned Fabrick, as it was first reared up at the Foot of Mount *Sinai*, the Timber Posts were adorned with Bases and Capitals; they had the Appellation given them of Pillars, because their Shafts were hewed Square;

and those Pillars were of three different Kinds: The Pillars of the Court representing, in some Measure, Living Trees; the Pillars in the Front of the Tabernacle itself representing likewise, in some Measure, Dead Trees, crowned with Ornaments resembling certain Parts of Dead Animals; and the Pillars within the Tabernacle representing also, in some Degree, Dead Trees, but without any additional Crowning.

To the Year One Thousand Four Hundred and Eighty-eight, before the Birth of Christ, we may very justly attribute the Rise of Order in the Posts of a Timber Building; but the Pillars so Dignified, were not imitated in Stone till King *Solomon*, to Exalt the *Jewish* Monarchy, and Proclaim the GOD of *Israel* to all the World, erected the Temple of *Jerusalem*; a Work performed Four Hundred and Eighty Years after the Tabernacle was built; and then the Forms and Proportions of PILLARS, with their APPENDAGES, were so adjusted as to become ORDERS of ARCHITECTURE for adorning the House of GOD; which was enriched not only with  
curious

curious Pillars of white Stone, but with such as were made of the choicest Wood; nay of Brass itself!

The Orders thus Fixed and Executed were, from thenceforward, Copied in all the principal Works that were carried on in the Land of *Canaan*; particularly in such as were erected by *Solomon* himself; who thereby rendered the Holy Land the Admiration of the then known World; the *Arabian*, and all other Kings of the Earth, with the Governours of particular Countries, flocking Yearly to his Dominions, to view the stately Buildings with which he had adorned them; and the Presents made by those Potentates and Governours to the *Jewish* Monarch, with what they themselves Expended, during their Stay in his Kingdom, was such a vast Increase of Wealth to it, that Silver was of little or no Estimation among the *Israelites*, the Metal having been as Plenty at *Jerusalem* as the very Stones themselves!

By this Concourse the Orders of Architecture were soon Copied and carried into *Egypt*; and after that they passed into *Assyria*; then into *Media*; next into



*Chaldea*; from whence they returned into *Canaan*, and were propagated, at the same time, in *Persia*: Immediately after that the *Grecians* received them; and, in their Publick Structures, made Columns, or Round Pillars, of such an enormous Size, that the Shafts of some were single Stones of sixty Feet in Length: Nor was the Beauty of those Structures less Admirable; and the Architect of almost every great Work left a Description of it in Writing, for the Information and Benefit of Posterity.

It was from those Writings only that the renowned Architect, *M. Vitruvius Pollionis*, pretended to have composed his Books on Architecture, for the Instruction of AUGUSTUS CÆSAR in the Science, when that Emperor conceived such an high Idea of the Beauty of the Orders, as to determine him to pull down the Brick Buildings, raised with common Walls, in the Capital City of the *Roman* Empire, and, upon their Sites, to erect the most superb Marble Structures, enriched with COLUMNS of every ORDER, as well as with their APPENDAGES.

To

To accomplish this in the Temples that had been erected to the Honour of the Gods all over the City of *Rome*, *Cæsar* was first Instructed, by *Herod the Great*, in all the *Jewish* Architecture; and then taking upon himself the Office of High Priest of *Rome*, immediately called for every Prophetick Book that could be collected within the Limits of his Empire, to the End that by examining them he might become acquainted with the Sacred Architecture of the Pagan World.

But alas! the Imperial Monarch and High Priest had no sooner done this, than he Destroyed and Burnt above Two Thousand Volumes of the Books he had been searching, whereby the History of Architecture became Obscure, and enabled *Vitruvius*, who was his chief Architect and Engineer, not only to ascribe the Invention of the Orders of Columns, and their Appendages, to whom he thought proper; but to place the Rise of them in the Age that appeared most agreeable to him: And in the Performance of this the *Roman* Architect divested the *Jews* of the Honour of the Invention of the Orders,

ders, in favour of the *Grecians*; but it was with this very remarkable Incident, that he applied all the Circumstances in Sacred History to Profane Authors, when the Books to warrant his Application were all consumed to Ashes!

This I have sufficiently exploded in my Book Intituled,

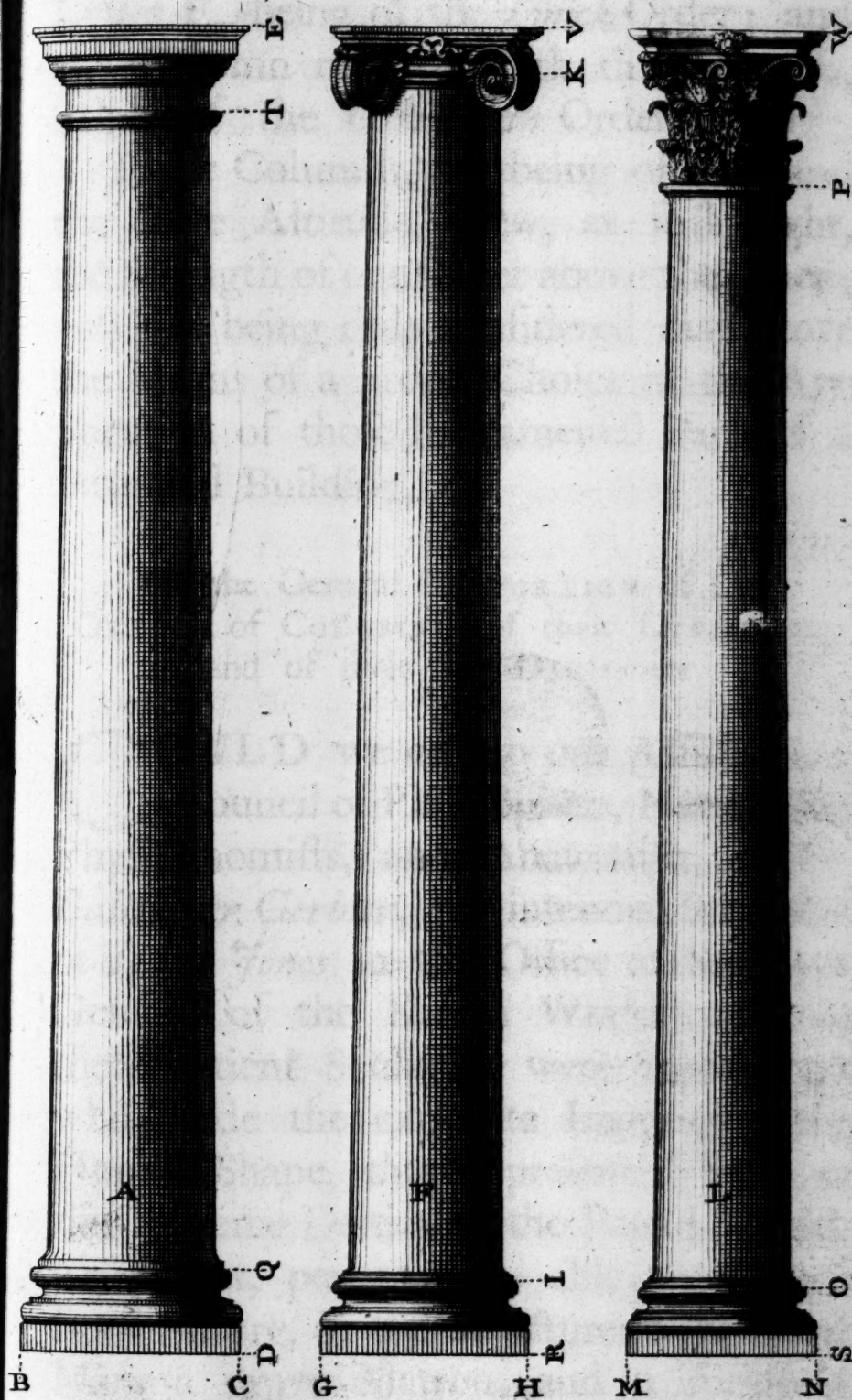
The  
ORIGIN of BUILDING:

Or, the  
PLAGIARISM of the HEATHENS  
DETECTED;

and in that Book I have, from Sacred and Profane History, from the Writings of *Vitruvius*, and from the Measures of the Buildings raised in the *Augustine*, as well as some other Ages, and still remaining at *Rome*, given the Sample of a Column of every Order, as they seem to have been Executed by the Antients in their Richest Dress and ultimate Perfection; and Samples of the same Shape, Dress and Proportion are exhibited in Plate, Number I; the Column marked with the Letter A, being of the *Dorick* Order; the Column marked with the Letter



Plate Number I.



A Column of each Order,  
and every one retaining a Proportion in the Structure  
Of a Strong well grown Man.



Of a strong well grown Man.  
I even saw him in a proportion in the structure  
A Column of such Order

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Letter F, being of the *Ionick* Order; and the Column marked with the Letter L, being of the *Corinthian* Order.

These Columns, by being of one and the same Altitude, shew, at first Sight, the Strength of one Order above the other; and this being duly considered may prove the Means of a proper Choice in the Application of those fundamental Parts of a Beautiful Building.

Of the General PROPORTION of the  
ORDERS of COLUMNS; of their DIVISIONS;  
and of their SUB-DIVISIONS.

**C**OULD we call to our Assistance a Council of Philosophers, Naturalists, Physiognomists, and Anatomists, as Sir *Balthazer Gerbier*, the intended Successor of *Inigo Jones* in the Office of Surveyor General of the King's Works, tells us those antient Sculptors were used to do who made the exquisite Images, in the Human Shape, that represented some of the supreme Deities of the Pagan World, we might, perhaps, be able to deduce from Nature, in the Structures of a robust Man, a grave Matron, and a sprightly young



young Girl, the Proportions of the *Dorick*, *Ionick*, and *Corinthian* Orders of Columns, since *Vitruvius* assures us that the former was the very Source of the latter: Our Author adding, that some of the *Grecians* made their *Dorick* Columns in the perfect Shapes of Men, and called them the Order of the *Caryatides*; while the *Persians* turned their *Ionick* Columns into the Images of Women, and denominated them the *Persian* Order.

Sacred History makes it undeniable that the Pillars of the Tabernacle were Emblems of so many People, representing, in that Fabrick, the sixty-nine Descendants of the Patriarch *Jacob* when they met together in *Egypt*: And Profane History makes it as undeniable that the Pillars of some of the Pagan Temples were likewise Emblems of so many Men raised to Divine Honours; an Instance of which is Recorded by *Pausanias*, who tells us, that in a certain Part of *Greece* there were thirty Stone Pillars that bore the Names of so many Divinities.

The Human Body was therefore the Source of the general Proportions given

to Columns; and if we examine into the Structure of a strong well grown Man, we shall find, that if his solid Content is reduced to a Tapering Pillar of equal Altitude with him, the Diameter of such Pillar, if Round, will be the one eighth Part, and if Square, the one ninth Part of its Length: Moreover the Thickness of a Man's Body, from the Navel to the Reins, was, from all Antiquity, looked upon to be the one tenth Part of his Altitude, and *Nebuchadnezzar* observed the Proportion in his great Golden Colossus: So that from hence the Columns of the *Dorick* Order were made eight Diameters High; those of the *Ionick* Order were made more slender, as containing nine Diameters in Altitude; and those of the *Corinthian* Order were still further lessened in Body, by making them ten Diameters in Height: Architects, from the remotest Times, making use of the Diameter of the Shaft of the Column at Bottom as the Standard Measure for determining the Size of every principal Part, whereof the whole Order of Architecture appeared to have been Constituted.

D

This

This Standard was divided, at Pleasure, into equal Parts, and generally into Sixty in Number; each of which was sub-divided, as occasion required, into two, three, four, or any other Number of Secondary Parts; and to the Standard the Name of Module was given, while each of its general Divisions, or its sixtieth Part, was expressed by the Word Minute.

Both these Names have long since rendered the Measures signified by them uncertain, Architects making the Module sometimes the one half, and sometimes the one third Part of the greatest Diameter of the clear Shaft of the Column: The Diameter, and the Parts of a Diameter, being therefore more certain Terms of Art, than Modules and Minutes, I shall, for the future, make Use of the former instead of the latter to express the whole Thickness, and the sixtieth Part of the Thickness of the clear Shaft of the Column of every Order next its Base.

The general Proportions of eight, nine, and ten Diameters for the Columns of the *Dorick*, *Ionick* and *Corinthian* Orders, being no other than those of the same Man  
con-



considered three different ways, to wit, as a solid Round Pillar, as a solid Square Pillar, and as a Pillar retaining the Thickness of the Human Body when viewed in Profile, the general Proportions of the Samples in Plate, Number I, are conformable to them; and the clear Shafts of those Columns form so many Frustrums of long Conical Rays, or gentle tapering Cylinders; so that such as shall maturely consider the entire Columns must unavoidably perceive a Masculine Strength in the Column A, a Feminine Softness in the Column F, and a Sprightly Gaiety in the Column L: In effect they may, with *Vitruvius*, see in them the most lively Symbols of the Robust Man, of the Grave Matron, and of the Sprightly young Girl; and when they are placed upon one another, a Harmony will, in many Cases, attend the Composition beyond any Thing that can be produced by Columns of unequal Altitudes sustaining one another; since the clear Shafts of the Columns A, F, and L, if joined together, will continue one and the same Diminution from the Bottom of the first, to the Summit of the last.

By the Draughts of the Banqueting House at *White Hall* inserted in *Campbell's Vit. Brit.* as well as in the Book of Designs published by the late Mr. *Cant*, or *Kent*, it appears that *Inigo Jones* intended to give the World a Specimen for placing Columns over Columns of one and the same Altitude, instead of making those above a fifth Part shorter than those below as *Vitruvius* directs, and as he was followed by *Palladio*; and if he had avoided some Things in his Sample, the Harmony of the Orders must, in the Words of Mr. *Campbell*, have produced, in the highest degree, Strength with Politeness, Ornament with Simplicity, and Beauty with Majesty.

The

grand DIVISION of each

ORDER of COLUMNS

is into three Principal Parts, the Foot, the Body, and the Head; in Architectonical Terms, the Base, the Shaft, and the Capital; and the Base of the *Dorick* Column extending in Length from B to C, rises in Height from D to Q; the Shaft of the same Column is contained between the Letters Q and T; and the Capital rises up from T to E.

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The ORDERS of COLUMNS. 29

The Base of the *Ionick* Column extends in Length from G to H, and its Altitude is marked with the Letters R and I; the Elevation of the Shaft of the same Column is comprehended between the Letters I and K; and that of the Capital is contained between the Letters K and V.

In the last place, The Base of the *Corinthian* Column extends in Length from M to N, and it rises in Height from S to O; the Shaft of the same Column having an Elevation from O to P, the Capital Springs further up, and this Crowning Ornament rises from the Letter P, to the Letter W.

The clear Shaft of the *Dorick* Column decreases at Top the eighth Part of the Diameter at Bottom; and the clear Shafts of the other Columns lessen in the same Proportion: so that by disengaging all the Shafts from the Mouldings that appear at each end of them, they will, when joined together, represent the clear Trunk of a strait and well grown Tree of the same Length whose Diameter at Bottom is equal to that of the Bottom of the Shaft of the *Dorick* Column A, and to the Diameter of  
of



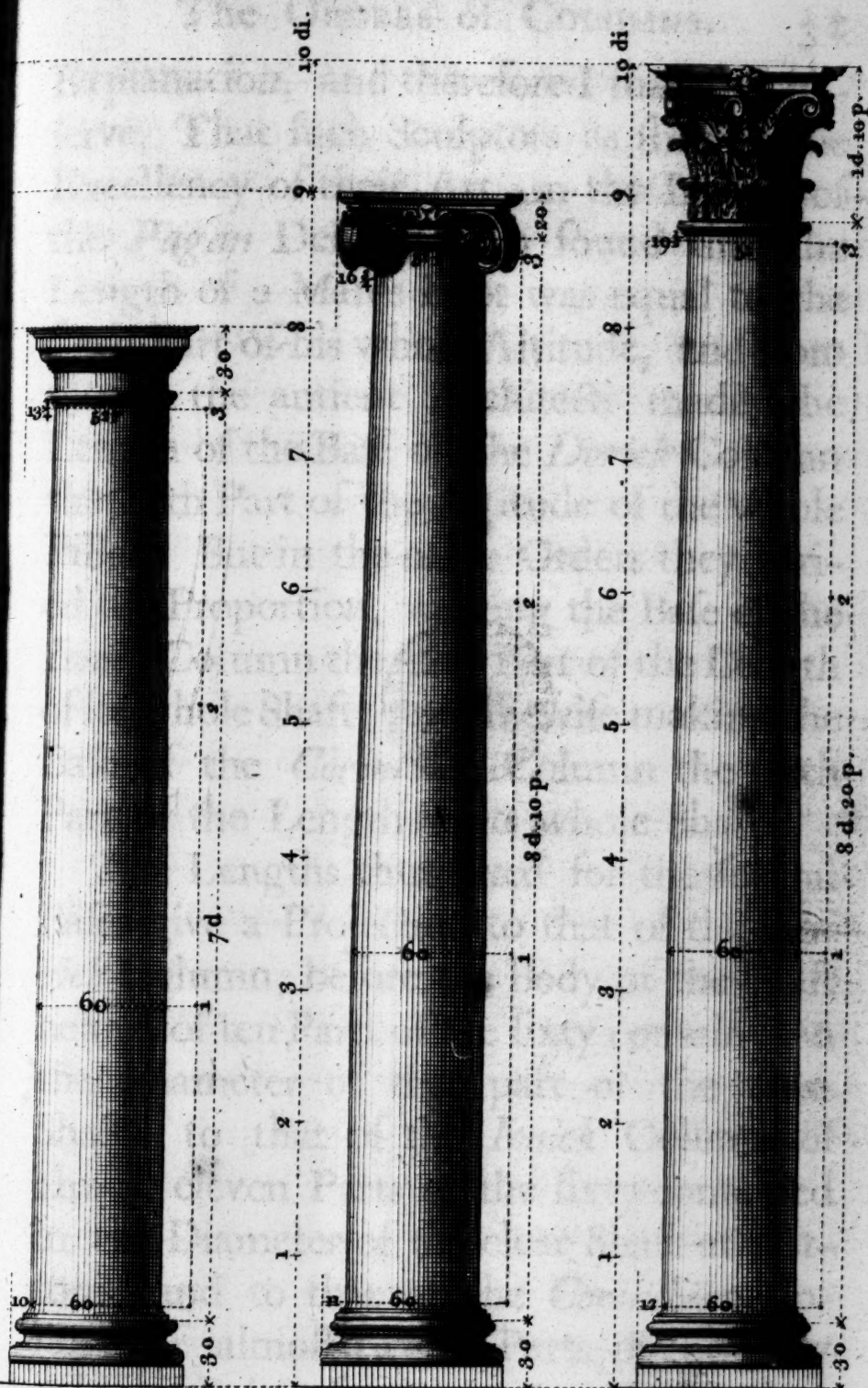
30 A DISSERTATION upon  
of the Top of the Shaft of the *Corinthian*  
Column L: And thus it may be very  
justly said that Nature, in the Human Bo-  
dy, gives us those general Proportions for  
entire Columns; and that the Tree of the  
Forest furnishes us with that Sort of Di-  
minution for their clear Shafts which were  
practised by the Antients in their most per-  
fect Works.

We have already pointed out the  
Strength of one Order of Columns above  
the other when they are of equal Altitude;  
now by making the Shafts of the Columns  
of each Order of one and the same Dia-  
meter at Bottom, as in Plate, Number II,  
the Delicacy and Stateliness of one entire  
Column above the other becomes still more  
Conspicuous: For as the Orders advance  
towards Virginal Beauty and Elegance, the  
Columns increase in their Altitude, and  
thereby one Order receives a Majesty above  
the other, even in Miniature upon Paper,  
which words can scarcely describe.

By the Samples in the Second Plate the  
Size of every principal Part of each Co-  
lumn becomes visible upon Inspection on-  
ly; but nevertheless they require some  
Ex-

# Plate, Number II.

30



A Column of each Order,  
The Shafts of which are of one and the same  
Diameter at Bottom.

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A volume of the  
The collection of the  
University of Michigan



## The ORDERS of COLUMNS. 31

Explanation, and therefore I shall first observe, That such Sculptors as shewed the Excellency of their Art, in the Images of the *Pagan* Deities, soon found that the Length of a Man's Foot was equal to the sixth Part of his whole Altitude, and from thence the antient Architects made the Length of the Base of the *Dorick* Column the sixth Part of the Altitude of the whole Pillar: But in the other Orders they varied the Proportion, making the Base of the *Ionick* Column the sixth Part of the Length of its whole Shaft; and likewise making the Base of the *Corinthian* Column the sixth Part of the Length of its whole Shaft.

The Lengths thus fixed for the several Bases give a Projection to that of the *Dorick* Column, before the Body of the Shaft below, of ten Parts of the sixty contained in the Diameter of that part of the clear Shaft; to that of the *Ionick* Column of almost eleven Parts of the sixty contained in the Diameter of the clear Shaft at Bottom; and to that of the *Corinthian* Column of almost twelve Parts of the sixty contained in the Diameter of the clear Shaft at Bottom.

The

### 32 A DISSERTATION upon

The Altitude of every Base is precisely half a Diameter, or thirty Parts of the sixty contained in the greatest Diameter of the Shafts of the respective Columns sustained by them : But the Altitude of every Capital is different ; that of the *Dorick* Column amounting to thirty Parts ; that of the *Ionick* Column amounting to twenty Parts ; and that of the *Corinthian* Column amounting to one Diameter and ten Parts.

These Capitals have different Projections before the Bodies of the Shafts of the Columns at top ; the Capital of the *Dorick* Column projecting thirteen Parts, and three quarters of another Part ; that of the *Ionick* Order projecting sixteen Parts, and three quarters of another Part ; and that of the *Corinthian* Order projecting nineteen Parts, and the one half of another Part.

The Diminution of the Shafts of these Columns reduces the Diameter of the upper part of that of the *Dorick* Order to fifty two Parts, and the one half of another Part ; it likewise reduces the Diameter of the upper Part of that of the *Ionick* Order to

to fifty one Parts, and the one half of another Part; and it also reduces the Diameter of the upper Part of that of the *Corinthian* Order to fifty one Parts, whether we consider the same Shafts as tapering Bodies from one end to the other; or as Bodies partly strait, and partly tapering.

For some of the antient Architects, deviating from Nature in the Diminution of the Columns of every Order, made the clear Shafts Cylindrical, or of one and the same Diameter for the first third Part of their Lengths, and Conical all the remaining two thirds, by gently Tapering them; while others gave them a swelling at about the third Part of their Altitudes, by Tapering them from thence downward as well as upward; the certain effect of which was, that the Columns looked as though they were bursting with their own, and their incumbent Weight; and therefore Modern Architects, embracing the least Evil, have mostly followed that sort of Diminution which the Antients gave to the upper two third Parts of the Shafts of their respective Columns: It is expressed in the Columns of the second Plate; and

E

Custom,

John Turner his Book may the 5 1754



34 A DISSERTATION upon  
Custom, or Necessity, may justify the  
Practice of it in some particular Cases.

In the same Plate the Altitude of every Column, with that of its Base, Shaft, and Capital, are marked with Figures denoting Diameters, and Parts of a Diameter: And the Projection of every Base and Capital, together with the Diameter of every clear Shaft, at Top and Bottom, are likewise marked with the same Figures, denoting Parts of a whole Diameter.

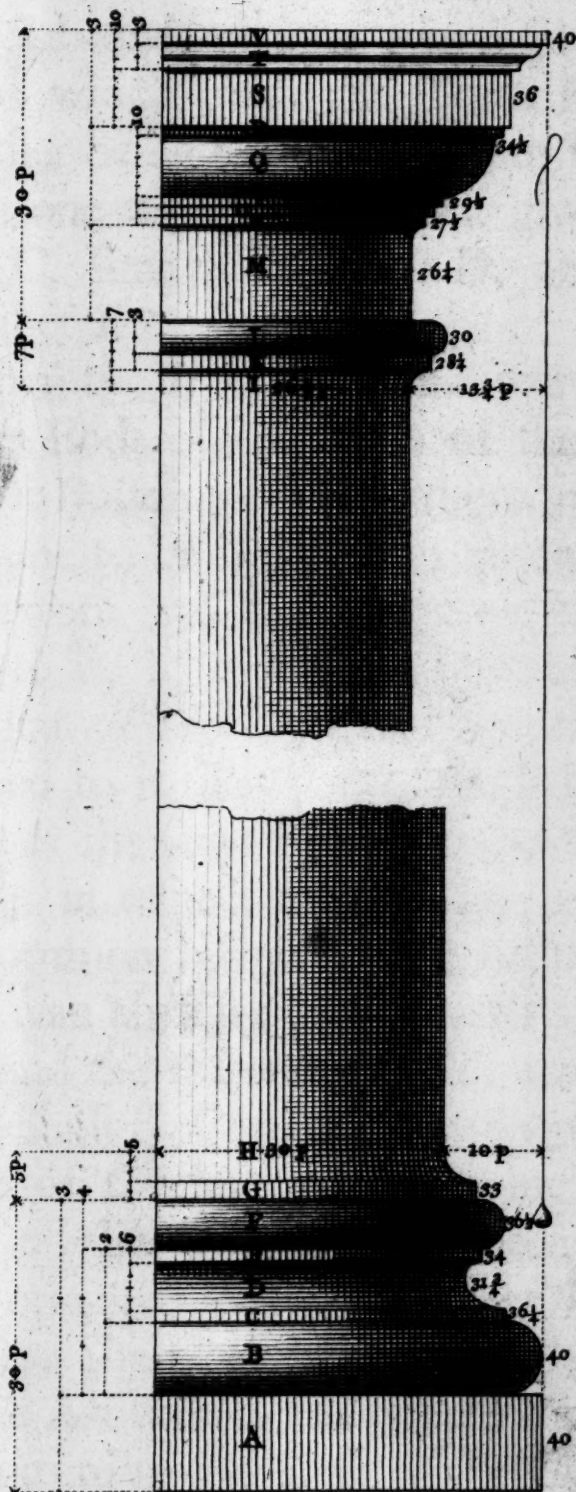
Plate, Number III, contains the Profile of the Base, Capital, and extreme Ends of the Shaft of the *Dorick* Column; and the

#### SUB-DIVISION

of the Base, in respect to its principal Parts, was into four capital Members, the Plinth, the lower Torus, the Scotia, and the upper Torus: But in regard to its Altitude it was first Sub-divided into three equal Parts, one of which made the Square Plinth, marked with the Letter A: The remaining two yielded the Circular Mouldings, and being Sub-divided into four equal Parts, of one of those Parts the Torus F was formed: The remaining three were  
next

Plate, Number III.

34



The PROFILE of  
the Base and Capital of the  
Dorick Column.





next Sub-divided into two equal Parts, one of which made the Torus B: And the other being Sub-divided into six equal Parts, one of those Parts was given to the Listel C, four to the Scotia D, and one to the Fillet E.

When the Iron Rings that were applied to the Ends of the Posts of the antient Timber Buildings to keep them from splitting came to be imitated in Stone, that at the Bottom had the Name of Apophyge given to it, to express its general Shape; but that at the Top had no other Title annexed to it than that of the Fillet, or a Name of the same Import; and the Apophyge, in respect to it's Use, only bore the common Name of the Listel: The Fillet was always enriched with an Astragal; and the Listel and Fillet were united to the Shaft by Cavettos, forming the Quadrants of Circles; and shewing that the Body of the Column was composed of three principal Parts, the lower Bandage, the clear Shaft, and the upper Bandage.

The Altitude of the whole Bandage at the Bottom of the Shaft of the *Dorick* Column amounting to a twelfth Part of the

whole Diameter, was Sub-divided into five equal Parts, two of which made the flat Listel, marked with the Letter G, the other three made the Cavetto that united it to the bottom of the Shaft at H: And the Altitude of the whole Bandage at the Top of the Shaft of the same Column amounting to seven Parts of the sixty contained in the Diameter below, those equal Parts being looked upon as Sub-Divisions, two of them made the Cavetto that united the flat Fillet K, to the Top of the Shaft at I; and the other five being again Sub-divided into three equal Parts, one was given to the Fillet K, and the other two made its Astragal L.

The *Dorick* Capital compared with the Head of a Man, is composed of three principal Parts, the Neck, the Face, and the Crown, or Scull: And the whole Altitude having therefore been Sub-divided into three equal Parts, the first of those Parts made the Collarina, or Neck of the Capital, marked with the Letter M; and the last of those Parts was given to the Abacus, or Crowning Member of the whole Column, which, in this Order, was  
always

always made of a Square Form, with strait Sides: The other Part yielded the circular Mouldings; and having been Sub-divided into ten equal Parts, three of those Parts made the Annulets N, O, and P; the next six were given to the Echinus Q; and of the last the Annulet, marked with the Letter R, was formed.

The Abacus, or Square Part of the Capital, was likewise Sub-divided into ten equal Parts, six of which made the Corona S; and the other four being again Sub-divided into three equal Parts, two of those Parts were given to the Cymasium T, and the other made its Fillet, or Head-Band, marked with the Letter V.

This Profile is taken from the Central Line of the Column; and the Projection of the several Members of the Base, Shaft, and Capital from the same Central Line, are all marked with Figures denoting Parts of a Diameter, and Fractions of the same Parts.

The *Grecians* of *Attica* were so fond of the Base of the *Dorick* Column, that they applied it to the Columns of both the other Orders; for which Reason it has borne

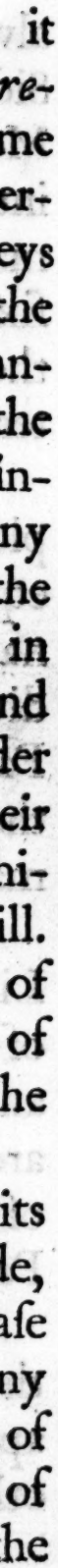


borne the Name of the ATTICK BASE; it was in general Use among the other *Grecian* States; and the Moderns, for some Generations past, have dressed the Apertures of Doors, Windows, and Chimneys with the Mouldings of that Part of the *Dorick* Column; they environed the Panels of some of their Wainscot with the same Mouldings; and with them they enriched Picture Frames, as well as many other Things, till the chief Part of the Mouldings of the *Dorick* Capital were, in several Cases, introduced in their stead, and the present Generation received them under the Title of Tabernacle Mouldings, for their Tabernacle Frames! So prevalent is Fashion, let its Rise be as Capricious as it will.

The fourth Plate exhibits the Profile of the Base, Capital, and extreme Ends of the Shaft of the *Ionick* Column; and the

#### SUB-DIVISIONS

of the Base, in respect to the Number of its principal Parts, as well as to its Altitude, were the very same with those of the Base of the *Dorick* Column; nor was there any real Difference in this fundamental Part of each Order, except in the Projection of the



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London, 1859



The Profile of  
the Ball and Capital of the  
Tower Column



the Members; most of those of the *Ionick* Base, exceeding those of the *Dorick* Base, about a tenth Part.

Nothing can be more Ridiculous and Absurd than the Base which we find described in the present Copies of the Works of *Vitruvius* for the Columns of this and the *Corinthian* Order; but, by the Moderns, applied only to the *Ionick* Column: And any Body who considers the Ability of that great Architect may venture to assert, That his Writings are, in this particular Instance, most grossly corrupted: However by changing the great Torus and the lower Scotia, with its Listel, Astragal and Fillet; placing the former where we find the latter; and then turning those small Members into a superior Torus, we shall have a Base conformable to some of the fine Samples of Antiquity; and such, no doubt, the Text of our Author sufficiently described to Cæsar, and the People of the *Augustan* Age.

The extreme Ends of the Shafts of the *Ionick* Columns were Bound uniform and alike, the Listel below having had its Astragal, as well as the Fillet above: The Al-  
titude

40 - A DISSERTATION upon  
titude of the whole Bandage to the Bottom of the Shaft amounts to six Parts, and the one half of another Part of the sixty contained in the whole Diameter; and this being Sub-divided into thirteen equal Parts, the Astragal A, took four of them; the remainder being again Sub-divided into three equal Parts, the Listel took one, while the Cavetto, uniting it to the Shaft of the Column, formed the other two: And the Altitude of the whole Bandage to the Top of the Shaft amounting to seven Parts of the sixty contained in the Diameter below, those equal Parts being looked upon as Sub-Divisions, two of them made the Cavetto uniting the flat Fillet to the Shaft of the Column; and the other five being again Sub-divided into three equal Parts, the Fillet took one, and of the other two its Astragal was composed.

Upon this Astragal the Antients began the *Ionick* Capital, notwithstanding the Volutes descend below it: Its whole Altitude was Sub-divided into three equal Parts, the first of which made the Echinus B, with its Fillet C; the second was given to the Springing up of the Volutes, and is  
marked

marked with the Letter D; and of the third the Abacus was constituted: The first of these Parts was again Sub-divided into six equal Parts, the Echinus taking five of them, the other making its Fillet; and the whole Abacus being Sub-divided likewise, though into three equal Parts, two of those Parts were given the Cimasi-um E, and of the other its Fillet, marked with the Letter F, was composed.

The Abacus was comprehended within a Square of eighty five Parts in Length, and eighty five Parts in Breadth; and as every Side of it was Concave, the Curve appears to have been always formed of the Sextant of a Circle, after the Angular Points were cut off, at Right Angles with the Diagonal Line of this Crowning Member, so as to make the strait Line at the Top of every Corner of it equal to the sixth Part of the Diameter of the Shaft of the Column below: And the Eye of the Volute being just Level with the Astragal of the Bandage to the Top of the Shaft, the first Contour of the whole spiral Ornament rose fifteen Parts above the Center of the Eye; extended thirteen Parts and a third



beyond the same Center ; dropt eleven Parts and two thirds below it ; and extended ten Parts within it: So that the whole Depth of the Volute amounted to twenty six Parts and two thirds ; the whole Breadth was equal to twenty three Parts and one third ; and this beautiful part of the Capital seems always to have made three Revolutions about its own Eye, as the same is expressed and figured in the fourth Plate.

Of these Volutes every Capital contained Eight ; and each two represented the Horns of a Ram issuing from the Skeleton of the Head that lay concealed between the Bottom of the Abacus and that of a Basen, whose outside made the Echinus B, with its Fillet C: Every Head was further intercepted by the Flowers and Leaves with which the whole was adorned ; and in some Cases every Volute represented the Cochlea in the human Ear ; as such they have been handed down to the Moderns ; and as such one of those Volutes is, in some Measure, expressed in the preceding Profile of the Capital of the *Ionick* Column.

The

The Infides of the Volutes, next the Column, spread from each other sometimes more, and sometimes less; but under the Corners of the Abacus they were generally kept so close together that, with their own Thickness, they seldom exceeded ten Parts, or the sixth Part of the Diameter of the Bottom of the Shaft of the Column; and their Projection from the Center of the Column towards the Angles of the Abacus is one of those Points in Architecture which may remain Arbitrary; it being certain that the Advance or Retreat of the Volutes of this Capital, together with their Union or Separation must give them Life and Spirit according to the Genius of the Carver; under which Denomination I don't intend to bring those Handicraft Workmen whose Labour in the common Inrichments of the Orders, scarcely amounts to a Mechanical Production; but such as have rendered the Work of their Hands, in any Branch of Carving, the real Effects of a Liberal Art.

Among the Ancient *Grecian* Carvers there was one, whose Name was *Praxiteles*, that carried his Art to such a sub-

lime Degree of Perfection, that a single Statue of the Goddess *Venus*, of his making, innobled the City of *Gnidos*; drew People from all Parts thither to behold it; proved the chief Credit of the *Gnidians*; and was so amiable and admirable every Way, as even to inamour one particular Man to such a high Degree, that, as *Pliny* attests, he secreted himself a whole Night in the Chapel of the Idol, and left apparent Marks of his having allayed his Passion with the cold Image of Stone.

10 This Statue was excelled by another of the same Goddess made by *Scopas* in the Marble of *Paros*; and *Pliny* tells us, in the fifth Chapter of his six and thirtieth Book, that after this great Sculptor had made three Statues for the *Samotheacians* in such an exquisite manner as to excite Devotion in the People at all their Religious Ceremonies; after he had made so many other Images of the Deities of the Heavens, of the Earth, and of the Sea, that the Work of a small Part of them was, in the Opinion of our Author, sufficient Employ for his whole Life; and after he had embellished the East Front of the Mausoleum,



or great Sepulchral Monument of *Mausolus* King of *Caria*, he, to crown the Works of his Hands with Glory, enriched one single *Ionick* Column out of the one hundred and twenty seven with which the Temple of *Diana* at *Ephesus* was surrounded when it was last rebuilt, or rather begun to be restored, in the Days of *Alexander* the Great!

Five and thirty of the other Columns of this renowned Temple were all that were carved by other Sculptors, notwithstanding People wrought on the stupendous Fabrick from about the Year 331, till the Year 186 before the Birth of *Christ*; and as the remaining ninety one Columns continued unadorned, notwithstanding they were the Gifts of so many Kings, we may fairly conclude that the World could not produce able Artificers enough to adorn them; such Artificers as had Talents, like *Scopas*, to imitate the Works of Nature, in the Volutes, the Flowers, and the Leaves of these *Ionick* Capitals; and to imitate them so as that they should appear to be the very Things they represented: For such is the sole End of the Art

46 A DISSERTATION upon  
of the sublimest Genius, and of the most  
dextrous Hand.

The Volutes of the Capitals to the *Ionick* Columns of the *Ephesian* Temple were undoubtedly of that sort which represented the Horns of a Ram ; Symbols of the highest Pitch of Divinity with the Antients ; as such *Alexander* the Great wore them when *Jupiter Ammon* had once declared him his Son ; and there is no doubt but that the Volutes of the Capitals to the *Ionick* Pillars that formed the Peristylum of the Hero's Funeral Chariot, were made in the Shape of Rams Horns. This Part of the Chariot, as described by *Diodorus Siculus* in the third Chapter of his eighteenth Book, was twelve Feet broad, and eighteen Feet long ; and the Pillars having been made of the finest Gold, they became remarkable among the most curious Works of Antiquity from an Acanthus of Gold that issued out of the middle of every Shaft, and sprouted up, in Branches, to the very Capital ; those Branches tapering all the Way as they ascended, till they terminated themselves in the Size of so many slender Threads.

Plate,

Plate, Number V, contains the Profile of the Base, Capital and extreme Ends of the Shaft of the *Corinthian* Column; and the

SUB-DIVISION of the Base, in respect to its principal Parts, was into four capital Members, the Plinth, the lower Torus, the Scotia, and the upper Torus: But in regard to its Altitude, it was first Sub-divided into three equal Parts, one of which made the Square Plinth; and the remaining two were appropriated for the circular Mouldings, as in the Bases of the Columns of the other Orders.

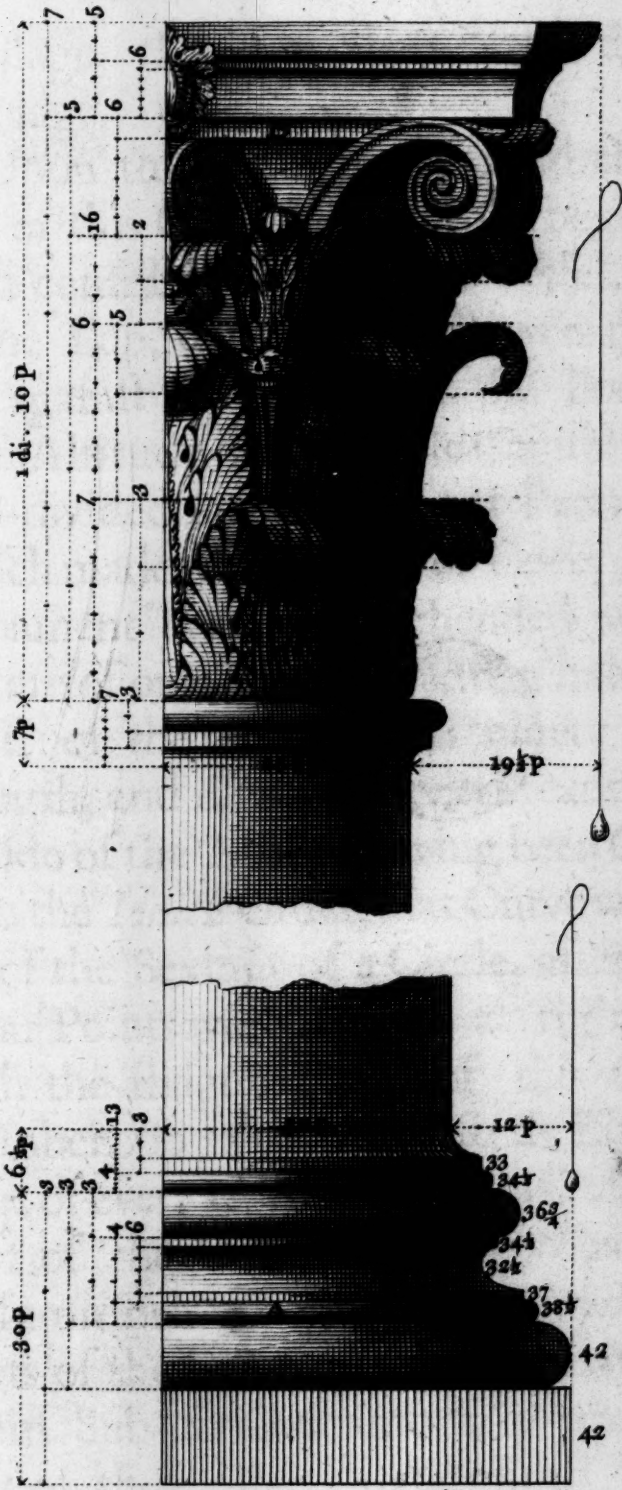
These Mouldings were still of the same Form with those of the *Dorick* Base, and of the same Number, since the Astragal upon the lower Torus, marked with the Letter A, was part of the Listel of the Scotia, and was introduced as an Ornament to it, just the same as the Astragal A, Plate, Number IV, was introduced as an Ornament to the whole Bandage at the Foot of the Shaft of the *Ionick* Column: The Astragal of the *Corinthian* Base necessarily lessened the other Mouldings,



ings, and rendered them lower than we find them in the Bases of the other Columns: And therefore their whole Altitude having been Sub-divided into three equal Parts, the first of those Parts was given to the inferior or great Torus; and the two next having been again Sub-divided into three equal Parts, the last of those Parts was given to the superior or small Torus; and of the other two the Scotia, with its Astragal, Listel and Fillet were constituted: The whole Heighth of these four Members was Sub-divided into four equal Parts, one of which made the Astragal A; and the remaining three having been again Sub-divided into six equal Parts, the first was given to the Listel, the four next made the Scotia, and of the last the Fillet was formed.

The extreme Ends of the Shafts of the *Corinthian* Columns were bound uniform, and alike, answerable in every respect to the Bandages at each End of the Shafts of the *Ionick* Columns; and thus the Bodies of the Columns of this, as well as of each of the other Orders, were severally composed of three principal Parts, the lower  
Bandage,

Plate, Number V.



The PROFILE of  
The Base and Capital of the  
Corinthian Column .



THE PROFILE of  
The face and contour of the  
Corinthian Column



Bandage, the clear Shaft, and the upper Bandage.

Upon the Shafts thus bound the Capitals of this Order of Columns began, and each consisted of a circular Vessel, covered at the Top, with various Flowers springing up against the outside of the Body of it. The Altitude of the whole Capital was first Sub-divided into seven equal Parts, one of which made the Abacus, or Cover; and this Ornament was comprehended within a Square of one Diameter and a half of the Shaft of the Column, or ninety Parts in Length, and ninety Parts in Breadth: Every Side of the Abacus having been Concave, as in the *Ionick* Order, that Curve was formed of the Sextant of a Circle, after the Angular Points were cut off at right Angles with the diagonal Line of this crowning Member, so as to make a strait Line at the Top of every Corner of it equal to the fifth Part of the Diameter of the Shaft of the Column below: and the remaining six Parts of the first Sub-Division, having been again Sub-divided into five equal Parts, one of those Parts determined the Altitude of all the Angular Volutes, which

G

were

were eight in Number; the rest were Subdivided into sixteen equal Parts, and seven of those Parts were given to the first Row of Leaves consisting of eight in Number; the second Row of Leaves, consisting likewise of eight in Number, rose six Parts higher; and the Leaves in the third Row that terminated against the Bottom of the Angular and other Volutes, rose still higher by the three remaining Parts.

The Extremity of every Leaf of the first Row was bent downward the third Part of its whole Altitude; the Extremity of every Leaf of the second Row was bent downward two Parts in five of its whole Height above the Top of the Leaves of the first Row; and the Extremity of every Leaf of the third Row was bent downward the one half of its whole Height above the Top of the Leaves of the second Row.

All the Leaves were Convex at Bottom; but as they rose up their Convexity decreased till they came to strait Lines, and then they began to turn Concave: They were sometimes ruffled so as to resemble the Leaves of particular Herbs; sometimes

to look like the Leaves of particular Flowers; and sometimes to appear like the Leaves of particular Trees; but generally of the Palm Tree: And the Angular as well as other Volutes sprung up, like Tendrels, out of eight Flowers, every one of which had its particular Stalk and Husk, together with four Leaves; one Leaf appearing in Front, two rising up in Profile, but soon turning about almost to full Faces at Top, and the other lying concealed against the plain Vase of the Capital.

Carvers commonly mistake the twisting Leaves of this Flower, and represent them only as half Leaves: An Error the most fatal of any that Men have run into to lessen the Beauty of the Capital Ornament to this elegant Order of Columns.

The Depth of the Angular Volutes being divided into six equal Parts, five of those Parts determined the Depth of the Central Volutes, which were eight in Number; and the former rising up to the Bottom of the Abacus, the latter bent themselves under the Brim of the Vase of the Capital, marked with the Letter B: This Brim formed the Quadrant of a Circle, at the



same time that its Projection was united to the Body of the Vessel by a Cavetto, answering the same Portion of a Circle: And the Contour of the rest of that Vessel made, in its Altitude, a kind of Cimafium, formed rather by Portions of the Curve of a Parabola, than by those of a perfect Circle.

The Contour of the Abacus made a Sort of Cimafium likewise, a Listel separating the Convex and Concave Parts of it; and the whole Altitude having been divided into five equal Parts, the Ovolo, or Convex Member of this Crowning Ornament of the Capital took two of them; the other three were again Sub-divided into six equal Parts, five of which were given to the Cavetto, or Concave Member; and the sixth made the Listel.

The Center of every Side of the Abacus was adorned sometimes with a Pomegranate, sometimes with a Lotus, and sometimes with other Sorts of Flowers, or Fruit: but in every Case the Ornament was sustained by a Stalk issuing out of a husked Flower that rested itself upon the Top of one of the Leaves of the second  
Row

Row that furrounded the Body of the Capital.

The Volutes seldom made any more than two Revolutions about their own Eyes; and their Advance from the central Line of the Column, as well as their Union with, or Separation from one another, appear to have been arbitrary Points, and left more to the Discretion of the Carver than any other Part of the Capital, notwithstanding the Beauty and Spirit of the whole Composition seems to have had a much greater Dependence upon the Projection that was given to these Spiral Ornaments, and their Position in respect to one another, than upon any of the established Rules for executing the Leaves, Flowers or Fruit.

Such Rules as I have now mentioned claim one of the greatest Sculptors, as well as Painters, of all Antiquity for their Author; it was the renowned *Callimachus*, whom the *Athenians*, according to *Vitruvius*, honoured with the surname of *Catactenos*, that gave the People of *Corinth* a proper Sample for enriching the Heads of the Columns of their Buildings; and the

Rules

Rules he prescribed to them were invariable Precepts to the *Grecians* in all the succeeding Generations wherein Architecture flourished in that polite and learned Part of the World.

A peculiar Genteelness that reigned in the Works of *Callimachus*, and an amazing Tenderneſs that appeared in ſuch as were of Marble, ſoon raiſed him upon the Wings of Fame; and when he was mounted, he ſoared after the ſublimeſt Degree of Perfection in every other Branch of the Sculptor's Art with an Ardency that made him grow diffident of his own Performances, and ſet him upon mending the very Works which had merited public Applauſe, and left him without a Competitor.

This great Man however carried his Diffidence ſo far, that forgetting the perpetual Changes in the Works of Nature, he was not contented with once mending his Capital Works that at firſt repreſented them, even to a Deception! but was perpetually endeavouring to give them a higher Degree of Perfection, till he, for want of his Original to Copy after, had diveſted them of  
all



all Perfection; whereby he got his Name of Honour changed to one that carried Reproach in it, as *Pliny* hath recorded the Fact in the eighth Chapter of his four and thirtieth Book: And therefore to the great Mistrust which *Callimachus* had of his own Ability in a first Copy from the Works of Nature we may very justly attribute the Latitude that was left to Carvers in the Execution of some of the Parts of the *Corinthian Capital*.

Of the general PROPORTION of the  
ENTABLATURE to each ORDER of COLUMNS;  
Its DIVISIONS; and its SUB-DIVISIONS.

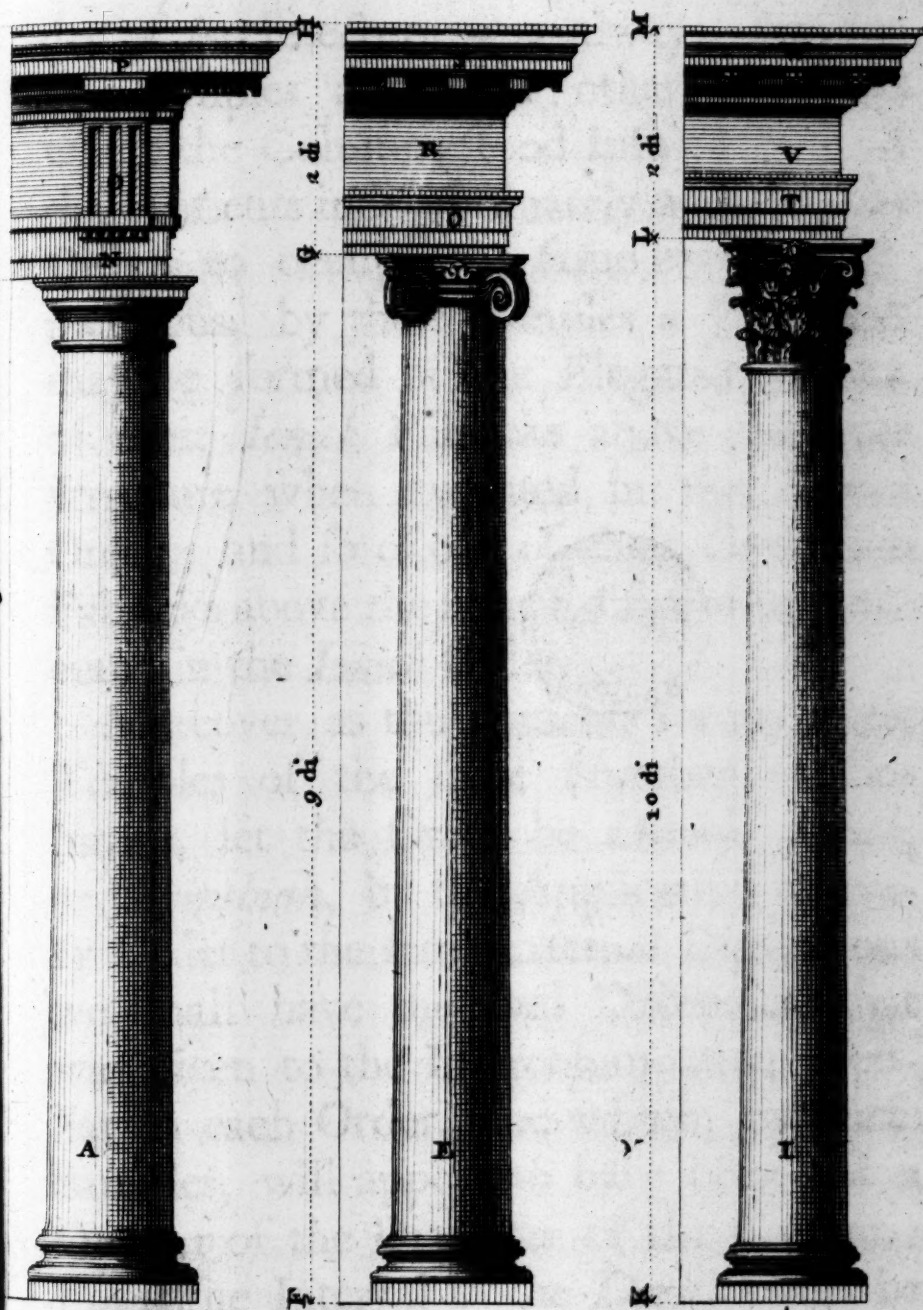
**C**OLUMNS of every Order were, in the most famous Works of Antiquity, crowned with the same kind of Ornaments; and those Ornaments are now, by the common Consent of Architects, put under the general Name of Entablature: An Appendage whose Altitude, in every Order, appears to have been the very same; and to have been just equal to two Diameters of the Shaft of the Column, taken at the Bottom.

Plate,

Plate, Number VI, exhibits a Column of each Order, Crowned with its proper Ornaments; and the Entablature to the *Dorick* Column, A, rises from the Letter C to the Letter D; the Entablature to the *Ionick* Column, E, rises from the Letter G to the Letter H; and the Entablature to the *Corinthian* Column, I, rises from the Letter L to the Letter M; each Entablature being two Diameters of the Column to which it belongs; and the *Dorick* Entablature amounting to a fourth Part of the Length of the Column from B to C; that of the *Ionick* Entablature amounting to two ninths of the Length of the Column from F to G; and that of the *Corinthian* Entablature amounting to a fifth Part of the Length of the Column from K to L.

These Columns, with their Crowning Ornaments, are exhibited under one and the same Altitude to render the different Degrees of Strength in each Order of Columns conspicuous by Inspection only; and, at the same time, point out the Difference of the Weight sustained by each Column from a Comparison between the  
apparent

## Plate, Number VI.



A Column of every Order,  
And each Crowned with its proper  
ENTABLATURE .





ENTABLATURE.  
And each Crowned with its proper  
Column of Order.

apparent Size of one Entablature and the other ; since so much of the entire Order of Architecture was always executed in Temples and such other Structures where the Columns stood Insulate : And the Antients indiscriminately applying the Orders to occupy the same external Dimensions, by these Samples a Judgment may be formed of the Elegance of one of their *Ionick* Fabricks above the same Structure when executed in the *Dorick* Order ; and so of one of their *Corinthian* Fabricks above the same Edifice when executed in the *Ionick* Order.

Moreover as the Antients formed their Temples of the same Number of Columns, let the Order be *Dorick*, *Ionick*, or *Corinthian*, by the Application of every Order to the same external Dimensions we shall have the real Difference that was given to the Intercolumnation peculiar to each Order, and which, by these Samples, will appear to have been just a Quarter of the Diameter of the Column : For if the Interval in the *Dorick* Order be supposed one Diameter and a half ; in the *Ionick* Order it will amount to one Dia-

H.

meter

58      A DISSERTATION upon  
meter and three Quarters; and in the *Corinthian* Order to two Diameters.

The  
Grand DIVISION of each  
ENTABLATURE

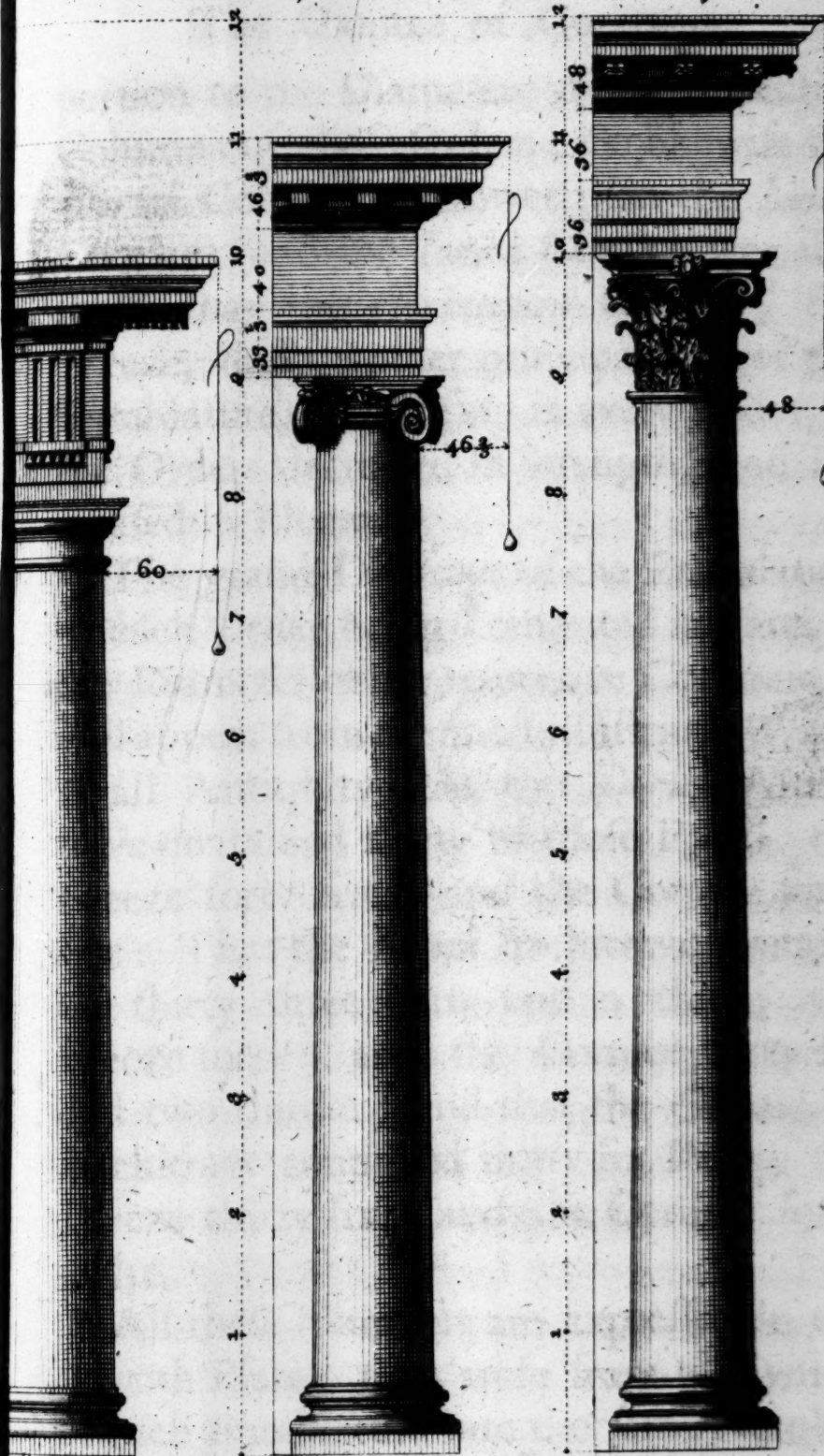
was always into three principal Parts, bearing the Names of the Architrave, the Freeze, and the Cornice: And in the Sample of the *Dorick* Order, Plate Number VI, the Architrave is marked with the Letter N; the Freeze with the Letter O; and the Cornice with the Letter P: In the Sample of the *Ionick* Order the Architrave is marked with the Letter Q; the Freeze with the Letter R; and the Cornice with the Letter S: And in the Sample of the *Corinthian* Order the Architrave is marked with the Letter T; the Freeze with the Letter V; and the Cornice with the Letter W.

The Heighth of every principal Part of the Entablature was different in the different Orders; the *Dorick* Architrave, as expressed in the seventh Plate, having had less Altitude than the *Ionick* Architrave; and the *Ionick* Architrave having had less Altitude than the *Corinthian* Architrave in Proportion



Plate, Number VII.

58



A Column of every Order,  
Crowned with it's proper Entablature;  
Each Shaft being of the same Diameter.



portion to the Diameter of the respective Columns of those Orders : So likewise the *Dorick* Cornice was lower than the *Ionick* Cornice; and the *Ionick* Cornice was still lower than the *Corinthian* Cornice; the Freeze, and no other principal Part of the Entablature, decreasing in every Order, as the Orders decreased in Strength, and increased in Elegance.

The grand Divisions of the Entablature of each Order being computed in Parts of the Diameter of the respective Columns, it will appear from the most illustrious Works of all Antiquity that the *Dorick* Architrave contained thirty of those Parts; the Freeze forty five; and the Cornice forty five: That the *Ionick* Architrave contained thirty three Parts and a third; the Freeze forty; and the Cornice forty six and two thirds: And that the *Corinthian* Architrave contained thirty six Parts; the Freeze thirty six; and the Cornice forty eight.

All these Numbers are expressed in the seventh Plate; they arose from a Division of each Entablature into the same Number of Parts, as there were Diameters in the



Length of the Columns; and therefore as the *Dorick* Column was eight Diameters High, the *Ionick* Column nine, and the *Corinthian* Column ten; so the Altitude of the respective Entablatures was divided into eight, nine, and ten equal Parts; and the *Dorick* Architrave taking two of the eight Parts the Entablature of that Order was divided into, and the Freeze three of the same Parts, the remaining three were given to the Cornice: In like manner the *Ionick* Architrave taking two and a half of the nine Parts the Entablature of that Order was divided into, and the Freeze three of the same Parts, the remaining three and a half were given to the Cornice: And, in the last place, the *Corinthian* Architrave taking three of the ten Parts the Entablature of that Order was divided into, and the Freeze three of the same Parts, the remaining four were given to the Cornice.

The Projection of the *Dorick* Cornice before the Shaft of the Column, at Top, was equal to a whole Diameter of the same Shaft, at Bottom, whereby it exceeded its own Altitude by a fourth Part; but the

the Projection of the Architrave, in the strait part of it, amounted to no more than three of those Parts whereof the Diameter of the Shaft of the Column contained sixty; nor did it exceed four Parts and a half before the Ornaments of the Freeze: The Projection of the *Ionick* Cornice, before the Shaft of the Column, at Top, was just equal to the whole Altitude of that Part of the Entablature; but the Projection of the Architrave amounted to no more than nine Parts and a half of the sixty contained in the Diameter of the Shaft of the Column at Bottom: And the Cornice of the *Corinthian* Order, like that of the *Ionick* Order, had a Projection, equal to its whole Heighth, before the Shaft of the Column at Top; the Architrave, at the same time, projecting only ten of those Parts whereof the Diameter of the Body of the Column, next its Base, contained sixty.

These Projections are all expressed in Figures in the seventh Plate; and by the Samples in that Plate, as the Columns are all of one and the same Diameter, the Stateliness and Majesty peculiar to their Com-

Composition and Proportion becomes visible by Inspection only; and this may lead, even experienced Architects themselves, to a proper Choice of Columns, with their Crowning Ornaments, for any Structure whatsoever.

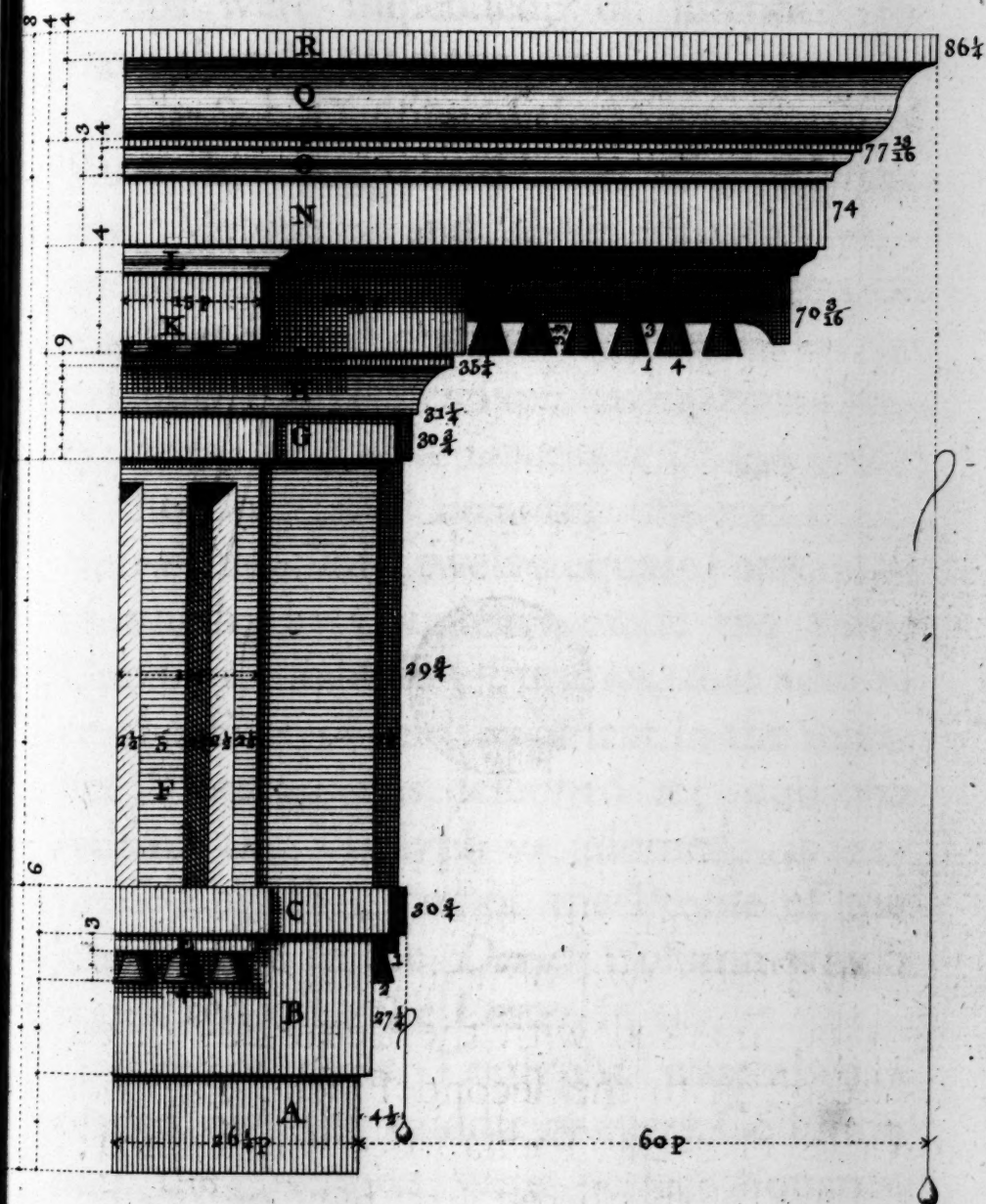
Plate, Number VIII, contains the Profile of the Entablature to the *Dorick* Column; and the grand Division of those Ornaments by Parts of the Standard Measure for the Order, as well as by Parts of their own Altitude, are better expressed in this, than in the preceding Plates: Now the

#### SUB-DIVISION

of the Architrave being into three principal Members, the Heighth of each of them is determined by Sub-dividing the whole Altitude of those Members into six equal Parts, two of which made the first Fascia, marked with the Letter A; three were given to the second Fascia, B; and of the other the Tænia, C, was formed: The last of the three Parts that Constituted the Fascia B, was again Sub-divided into three equal Parts, two of which were given for the Guttæ, or Demi Conical Drops, marked



## Plate, Number VIII.



The PROFILE of  
The Entablature to the  
Dorick Column.

Page Number VIII



THE PROCEEDINGS  
OF THE  
THE UNIVERSITY OF MICHIGAN  
THE PROCEEDINGS

marked with the Letter D; and the third made the String, E, by which those Drops were suspended, or intended to have that Appearance.

The Sub-Division of the Freeze was into Parts that bore the Names of Triglyphs and Metopes; and these followed one another alternately in the whole Length of this Part of the Entablature, how far soever extended: Each Triglyph having been thirty Parts, or half a Diameter of the Shaft of the Column in Breadth, this was again Sub-divided into twelve equal Parts, six of which, in Couplets, made the three Gravings, or hollow Furrows, that adorned the Face of this Ornament in the manner *Vitruvius* has described it; and one half of the Triglyph so adorned, is expressed by that Part of the Profile of the Entablature to the *Dorick* Column which is marked with the Letter F.

One of these Triglyphs was always placed over the middle of every Column; and the Metopes were perfect Squares, each having been forty five Parts in Breadth, as well as forty five Parts in Heighth.

The



The Cornice was composed of four chief Members, commonly called the Bed Moulding, the Mutules, the Corona, and the Cimaſium; and the whole Altitude of this Part of the Entablature being Sub-divided into four equal Parts, each chief Member took one of them: The Part given to the Bed Moulding was again Sub-divided into nine equal Parts, four of which made the Swathe or Bandage G, four were applied to the Cavetto H, and one was given to the Fillet I: The Part that contained the Mutules was again Sub-divided into four equal Parts, the clear Mutule, marked in Front with the Letter K, and in Profile with the Letter M, taking three of them, and its Cimaſium the other: The Part that formed the Corona was firſt Sub-divided into three equal Parts, two of which were given to the Face of this Crowning Member, marked with the Letter N; and the other being again Sub-divided into four equal Parts, of the firſt three the Cimaſium O, was formed, the other was given to its Fillet P: And the Part that made the laſt chief Member of the Cornice having

ing been Sub-divided into four equal Parts, three of those Parts were given to the Cimaſium Q, and one to its Fillet R.

The Soſit of every Mutule contained ſix Guttæ, or Drops, in its Length, and ſix in its Breadth, or thirty ſix in the whole; and theſe Mutules having been generally Horizontal underneath, their Breadth amounted to thirty Parts, or half a Diameter of the Shaft of the Column next its Baſe: The Mutules in the Cornice were placed directly over the Triglyphs in the Freeze: And by theſe Ornaments, the Intercolumnation proper to this Order was determined; it was that which bore the Name of the Picnoſtylos; and the Breadth of that Sort of Interval was always equal to one Diameter and a half of the Column; a ſingle Triglyph thereby appearing over the Center of the Void, as it appeared over that of the Column.

The ninth Plate exhibits a Profile of the Entablature to the *Ionick* Column; the grand Diviſion of thoſe Ornaments by Parts of the Standard Meaſure for the Order, as well as by Parts of their own Al-

titude, are expressed the same in this as they were in the preceding Plate ; and the

Sub-Division

of the Architrave being into four principal Members, the Height of each of them is determined by Sub-dividing the whole Altitude of those Members into twelve equal Parts, two of which made the first Fascia, marked with the Letter, A ; three were given to the second Fascia, B ; four were applied to the third Fascia, C ; of the two next the Cimaſium D was formed ; and the laſt was given for a Fillet to it, the Letter E, pointing out the ſecondary Member.

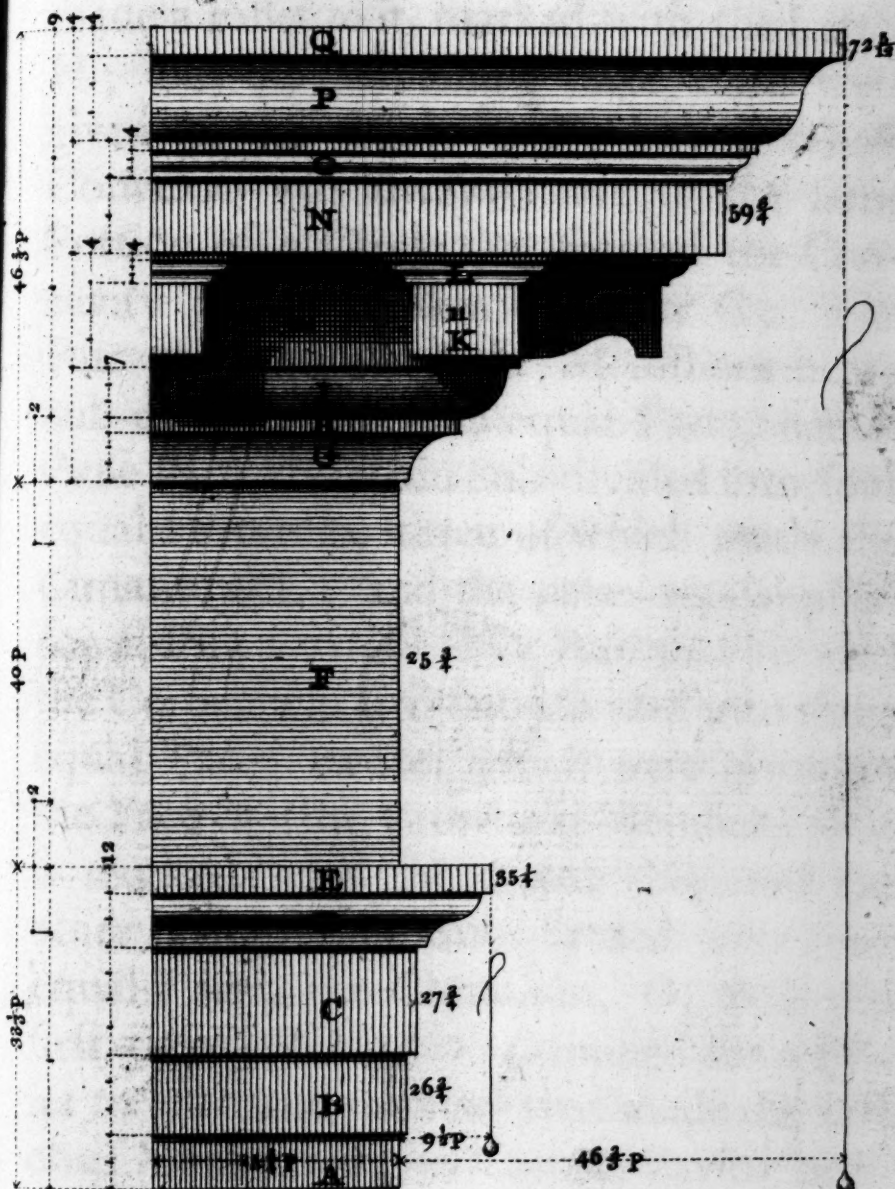
The Freeze, marked with the Letter F, was quite plain : But the Cornice was composed of four chief Members commonly called the Bed Moulding, the Modillions, the Corona, and the Cimaſium ; and the whole Altitude of this part of the Entablature being Sub-divided into four equal Parts, each chief Member took one of them.

The Part that was given to the Bed Moulding was again Sub-divided into ſeven



Plate, Number IX.

66



The PROFILE of  
The Entablature to the  
Ionick Column .



ven equal Parts, and the first three having been applied to the Cavetto G; the next made a Fillet to it, marked with the Letter H; and the remaining three Parts were given to the Ovolo or Echinus I, whose Convexity was always made of the same Portion of a Circle that formed the Concavity of the hollow Member G: The Part that contained the Modillions being Sub-divided into four equal Parts, one of those Parts was again Sub-divided into four equal Parts also, three of which made the Cimaſium L; and the other was applied for a Fillet to it: The Part that formed the Corona was first Sub-divided into three equal Parts, two of which were given to the Face of this Crowning Member, as it is marked with the Letter N; and the other being again Sub-divided into four equal Parts, the Cimaſium, O, took the first three, the last was applied for a Fillet to it: And the Part that made the last chief Member of the Cornice having been Sub-divided into four equal Parts, three of those Parts were given to the Cimaſium P; and of the other its Fillet, marked with the Letter Q, was formed.



The Breadth of the Face of the Modillion K is eleven Parts of the Standard Measure for the Order; the Profile, or Side of the same Modillion, marked with the Letter M, extends fifteen of the same Parts in Length; and the Distance between one Modillion and another amounts to twenty two of the like Parts; the Size of these Ornaments, and their Distances from each other, having, been thus determined, that the Center of a Modillion might answer the middle Line of the Front of the Column below, when the Columns were set at such Distances from one another as to form the real Intercolumnation belonging to the Order; and that Interval, bearing the Name of the Diastylos, in the Writings of *Vitruvius*, was equal in its Breadth to one Diameter and three Quarters of another Diameter of the Column.

The Diastylos is a Void arising from an application of a Couple of Columns of the *Ionick* Order, crowned with their Entablature, to the same external Dimensions in Height, and to the same Length from Center to Center, that contained a Couple of Columns of the *Dorick* Order, crowned with their

Enta-

The ORDERS of COLUMNS. 69

Entablature, when the Intercolumnation was of the Pycnostyle Kind: For so much of each Order being supposed to be thirty Feet high, the *Dorick* Column becomes three Feet Diameter; and the Thickness of the *Ionick* Column amounts to two Feet, eight Inches and eight elevenths of an Inch: The Void between the *Dorick* Columns amounting to four Feet six Inches in Breadth, the Distance from the Center of one Column to that of the other, becomes seven Feet and six Inches; and if out of this we take the Diameter of an *Ionick* Column, the Void will remain four Feet nine Inches and three elevenths in Breadth; or one Diameter and three Quarters of the Column.

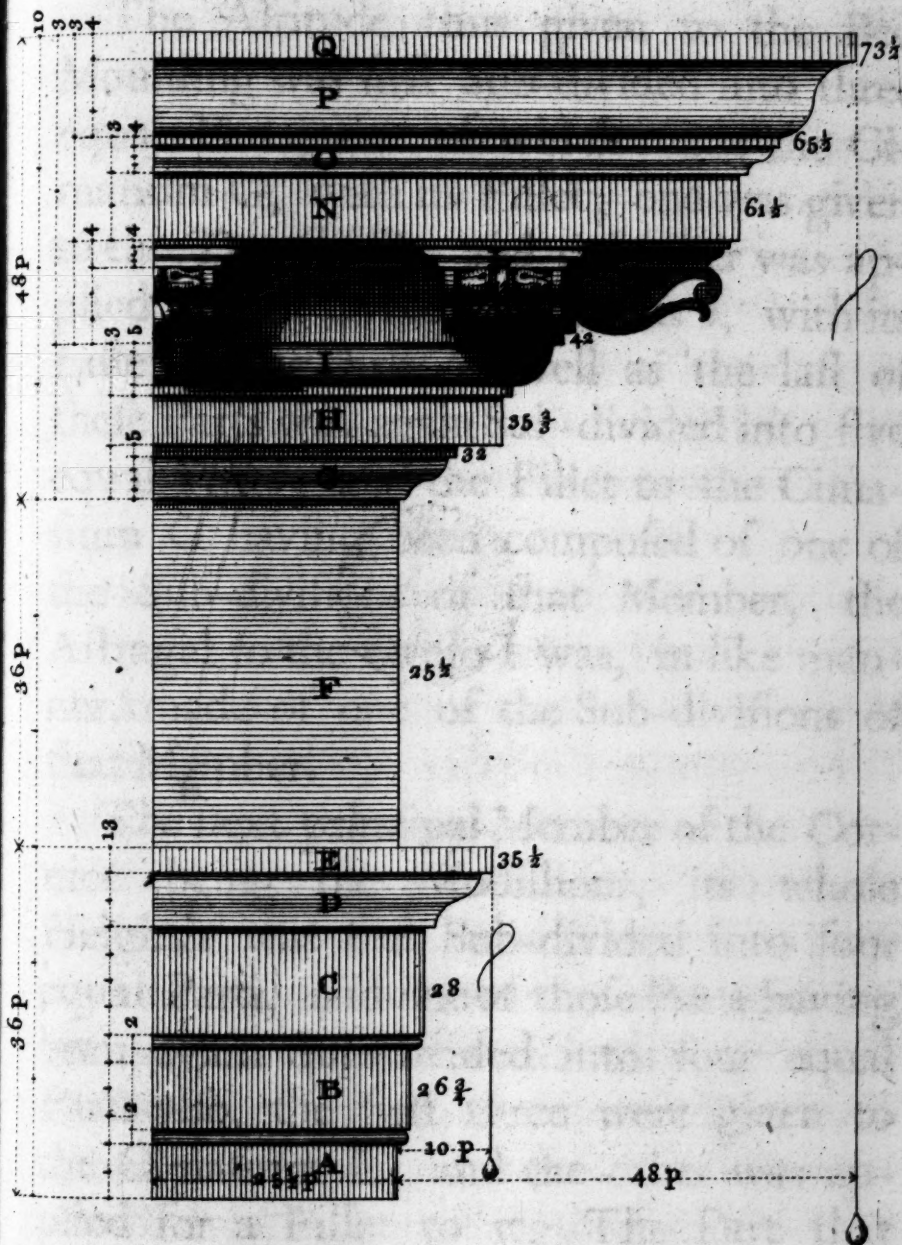
Plate, Number X, contains the Profile of the Entablature to the *Corinthian* Column; the grand Division of those beautiful Ornaments, by Parts of the Standard Measure for the Order, as well as by Parts of their own Altitude, are expressed the same in this as they were in the preceding Plate; and the

Sub-Division  
of the Architrave being into four principal

pal Members, as in the *Ionick* Order, the Altitude of each Member was determined by Sub-dividing the whole Heighth of this part of the Entablature into thirteen equal Parts, two of which made the first Fascia, marked with the Letter A, exclusive of its Bead, which took half a Part; three were given to the second Fascia B, exclusive of its Bead, which likewise took half a Part; four were applied for a third Fascia, marked with the Letter C; of the two next the Cimaſium D was formed; and the laſt was given for a Fillet to it, the Letter E, pointing out the ſecondary Member.

The Freeze of this Order, marked with the Letter F, was quite plain, like the Freeze of the *Ionick* Order: But the Cornice was compoſed of four principal Members bearing the Names of the Bed Moulding, the Modillions, the Corona, and the Cimaſium; and the whole Altitude of this part of the Entablature having been firſt Sub-divided into three equal Parts, the Bed Moulding was compoſed of the firſt of thoſe Parts: The remainder was again Sub-divided into three equal





The PROFILE of  
The Entablature to the  
Corinthian Column.



The ORDERS of COLUMNS. 71

equal Parts, and each of the other chief Members of the Cornice took one of them.

The Altitude thus given to the Bed Moulding was first Sub-divided into three equal Parts, one of which made the Cimaſium G, with its Fillet; one was given to the Dentils H; and the other was applied to the Ovolo or Echinus I, with its Liſtel: The first, as well as the laſt of theſe Parts was again Sub-divided into five equal Parts; and the Fillet to the Cimaſium G having been compoſed of one of the Sub-diviſions of that Member, the Aſtragal to the Ovolo I was, in like manner, made of one of the Sub-diviſions of that Member.

The next principal Member of the Cornice being the Modillions, its whole Height was first Sub-divided into four equal Parts, and one of thoſe Parts having been again Sub-divided into four equal Parts alſo, the first three were given to the Cimaſium L; and the other was applied for a Fillet to it: The Part that formed the Corona was first Sub-divided into three equal Parts, two of which were given to the Face of this Crowning Member,  
marked



marked with the Letter N; and the other being again Sub-divided into four equal Parts, the Cimaſium O, took the first three, the last was given for a Fillet to it: And the Part that made the last chief Member of the Cornice having been Sub-divided into four equal Parts, three of those Parts were applied to the Cimaſium P; and of the other its Fillet, marked with the Letter Q, was formed.

The Breadth of the Face of the Modillion K was precisely twelve Parts of the Standard Measure for the Order; the Profile, or Side of the same Modillion, marked with the Letter M, extended fifteen of the same Parts in Length; and the Distance between one Modillion and the other amounted to four and twenty of the like Parts: So that the Center of a Modillion directly answered the middle Line of the Front of the Column below, when the Columns were set at such Distances from one another as formed the Intercolumnation proper to the *Corinthian* Order, and that which bears the Name of the Syſtylos in the Writings of *Vitruvius*; an Interval equal to two Diameters of the Column; and it  
arose

arose from an Application of a Couple of Columns of the *Corinthian* Order, crowned with their Entablature, to the same external Dimensions in Height, and to the same Length from Center to Center, that contained a Couple of Columns of the *Dorick* Order, crowned with their Entablature, when the Intercolumnation was of the Pycnostyle Kind; or that contained a Couple of Columns of the *Ionick* Order, crowned with their Entablature, when the Intercolumnation was of the Diastyle Kind.

The Antients had another kind of Intercolumnation to which *Vitruvius* gives the Name of Areostylos; our Author, at the same time, telling us that it was a Void of four Diameters, or more, in Breadth; tho', as he further observes, it was seldom made Use of unless in such Structures where the Architrave that covered it was made of Wood; and the *Roman* Architect celebrating an Invention of *Hermogenes* in making the Breadth of the Porticoes of his double Winged Temples equal to the Diameter of a Column and the Width of two Intercolumnations, we

may, to that Invention, very justly attribute the Rise of the Areostylos, since by the Intermission of a Column in the Pycnostylos, Diastylos and Systylos Kinds of Intercolumnation, the Void becomes four Diameters in Breadth in the *Dorick* Order, to which the Pycnostylos belongs ; four and a half in the *Ionick* Order, to which the Diastylos is peculiar ; and five in the *Corinthian* Order, to which the Systylos was ever inseparable.

The Areostylos appears from hence to have been a Void that formed a double Square in each Order ; and therefore it was common to all the Orders.

The principal Use of this wide Intercolumnation was in Porticoes covered from Side to Side with a Timber Roof ; and notwithstanding *Vitruvius's* Silence, it might have borne the Name of the Pseudo-Pycnostylos, in the Pseudo-Dipterick Temples of the *Dorick* Order ; the Name of the Pseudo-Diastylos in the Pseudo Dipterick Temples of the *Ionick* Order ; and the Name of the Pseudo-Systylos in the Pseudo-Dipterick Temples of the *Corinthian* Order.



## The ORDERS of COLUMNS. 75

Central Intercolumnations were generally Dilated ; and the Augmentation seems to have been determined sometimes by the Breadth of a Mutule, or Modillion in the Cornice, together with the Length of the Space between two of them ; and sometimes by the Length of a Semi-Diameter of the Column : In both Cases the Addition rendered the chief Entrance to the Building Spacious and Commodious ; dignified the Interval with the Name of Eustylos ; and the Augmentation of half a Diameter to the Pycnostylos, Diastylos, and Systylos made every Intercolumnation of the same Figure, each amounting to four Squares in Length, and each forming a Moiety of the Areostylos.

Of the general PROPORTION of the  
PEDESTAL to each ORDER of COLUMNS ;  
Its DIVISIONS ; and its SUB-DIVISIONS.

SOME Architects, for I know not what Reason, Contest that the Pedestal is not an essential Part of an entire Order of Architecture, notwithstanding the very Name implies it to be such : For Pe-

destal is a Term of Art compounded of two Words, the one *Latin*, the other *Greek*; and both together signifies a Foot, or that which makes a solid Foundation to the compleat Column.

The *Grecian* Name of this Appendage to each Order of Columns is *Stylobates*, a Word of the very same Import with the compounded Name of *Pedestal*; and, in the Antient Architecture, this essential Part of an entire Order consisted of nothing but a plain solid Block of Stone of such Magnitude as was sufficient to sustain the Column, with its Crowning Ornaments and other incumbent Work.

The *Italians* looking upon these solid Blocks of Stone to be the same to the Bases of Columns, that the Sandals were to the Feet of Men, gave them the Name of *Zocolos*, or *Zocles*, and the Inhabitants of *Tuscany* applied them as Sub-Plinths to the Bases of the plain *Dorick* Columns of the Buildings erected by them in that Part of *Italy*; making the Altitude of each *Zocle* equal to the Diameter of the Shaft of the Column at Bottom; and enlarging, at the same time,  
its

its square Superficies at Top till it exceeded, by a small Matter, that of the square Bed of the Base of the Column: So that this Sort of Pedestal was of the same Proportion, or very near it, with the Bodies of the Brazen Bases made by the Order of King *Solomon*, to sustain the Lavers that were placed in the Inner Court before the Front of his Temple at *Jerusalem*; and it was likewise of the same Shape with the Chiuns of the Idolatrous *Jews*, and their Neighbours, who made Use of such Sort of Pedestals to support the Images of their Gods, and conceal those People within their Hollow Bodies that were appointed to make Responses, as though they came from the Mouths of the Idols.

Pedestals of this Shape and Proportion, when placed under continued Rows of Columns, appeared sometimes like so many distinct Bases as there were Columns; and sometimes like one entire Plinth, or Ground Sill, to a whole Row; Columns and Sill having been of the same Diameter, as is usual for such Parts of a Timber Building to be.

Thus



Thus each Order of Columns was, by its Zocle and Entablature, augmented to an Order of Architecture ; and the whole Altitude of the Appendages was an Addition to the Column of just three Diameters of the Shaft at Bottom.

The Pedestal I have been describing was oftener concealed in Fabricks composed of one Order, than made apparent to the Eye ; but the Column and its Entablature were always conspicuous in the same Building ; and when the Pedestals came to be Ornamented, they were never concealed, unless it happened that their Summits were to be ascended to by a Flight or Flights of Steps ; and then these eclipsed so much of the lower Appendage to the Orders of Columns, as they extended in Length against it.

The Brazen Supporters to the Lavers placed before the Front of *Solomon's* Temple seem to have proved a Sample for Ornamenting the primitive Pedestals of the Antients, by Elevating them upon Bases, and Crowning them with Cornices, whereby they became, in effect, dwarf Pillars of themselves ; and the Length  
of

of every Side of the Body of each Pedestal, or dwarf Pillar, was determined by that of the Foot of the Base of the Column, with which it exactly agreed.

Pedestals were thus Ornamented long before the Introduction of the Orders of Architecture into *Greece* ; and by the Additions that were made to them, the compleat Appendage beneath the Column appeared with Base, Body and Cornice ; the Antients, by that Composition, making it a compleat Figure of it self ; and the Term of *Dado*, by which the *Italians* have, from the remotest Time, distinguished the middle Part, shews it to have been increased from its original Heighth till it became a perfect Cube.

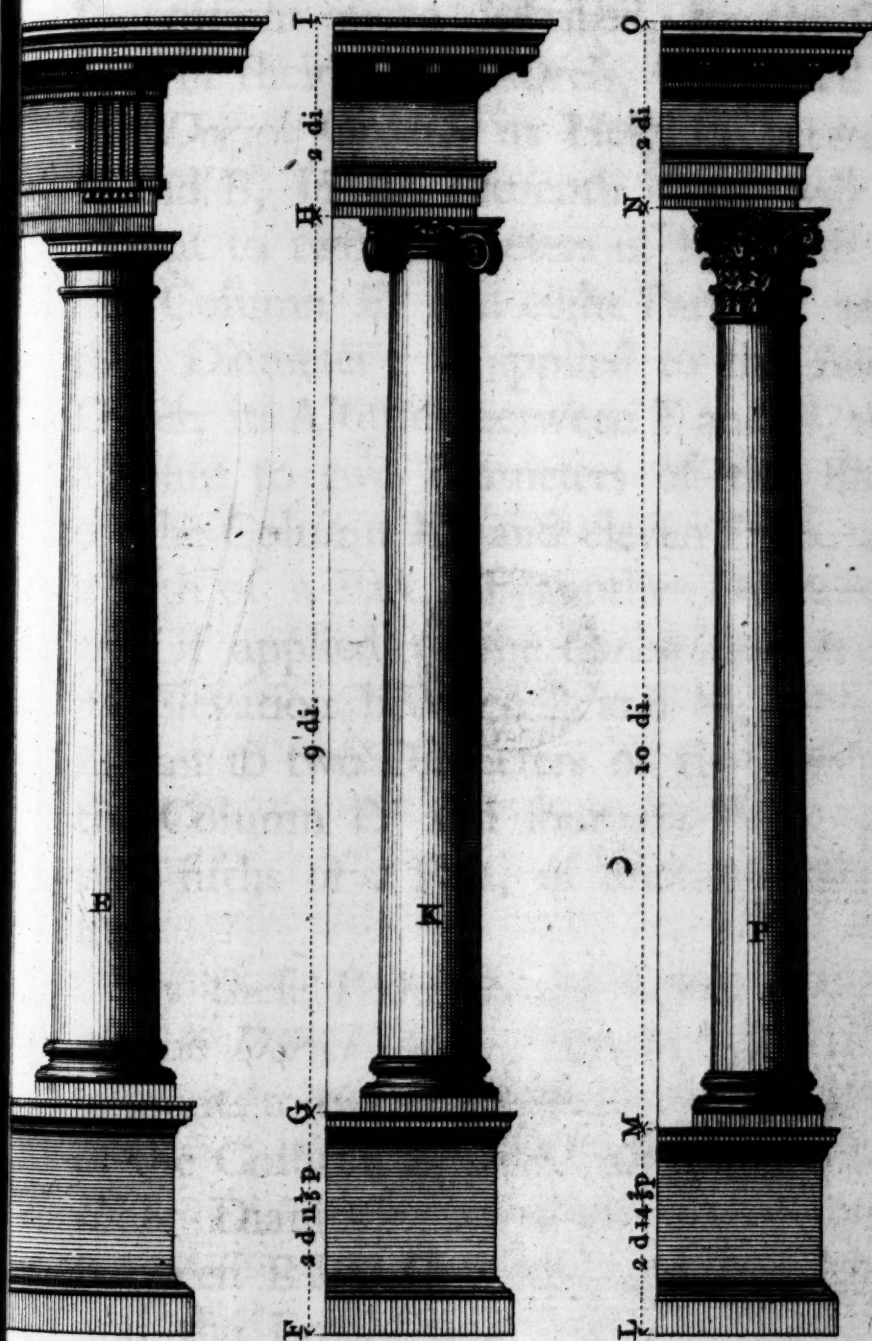
Upon Pedestals thus composed I have, in Plate, Number XI, elevated a Column of each Order, crowned with its Entablature, as a Sample of every compleat Order of Architecture, under one and the same Altitude, whereby the Strength of one entire Order above the other becomes more apparent than Words can well describe it : For at the same time that one Column increases in Heighth a-  
bove

bove the other, there is a visible Decrease in the Size of almost every Part that Constitutes the whole Order ; and this Difference may point out a right Choice in the Application of the Orders, with regard to Oeconomy ; a Precept in Building of the highest Importance ; and therefore a proper Choice of the Orders, in that Respect, is every whit as material as it is in regard to Beauty itself, or to any other Character.

As the Length of the Base of the Column always determined the Breadth of the Body of the Pedestal, this, in the *Dorick* Order, amounts to one Diameter of the Shaft of the Column at Bottom, and to twenty Parts of the Sixty contained in another Diameter ; in the *Ionick* Order it amounts to one Diameter of the Shaft of the Column at Bottom, and to twenty two Parts of the Sixty contained in another Diameter ; and in the *Corinthian* Order it amounts to one Diameter of the Shaft of the Column at Bottom, and to twenty four Parts of the Sixty contained in another Diameter.

Now a Pedestal under the general  
Pro-





A Column of every Order,  
Each Elevated upon it's proper Pedestal,  
And Crowned with it's Entablature.



## The ORDERS of COLUMNS. 81

Proportions above described, for the Orders in their richest Dress, if applied to the *Dorick* Order, its Heighth between A and B, in the Eleventh Plate, will amount to two Diameters of the Shaft of the Column E, and eight Parts of another Diameter ; if applied to the *Ionick* Order, its Altitude between F and G, will amount to two Diameters of the Shaft of the Column K, and eleven Parts, and a fifth of a Part, of another Diameter ; and if applied to the *Corinthian* Order, its Elevation between L and M, will amount to two Diameters of the Shaft of the Column P, and fourteen Parts, and two fifths of a Part, of another Diameter.

By these Pedestals the whole Altitude of the *Dorick* Order, between A and D, amounts to twelve Diameters of the Shaft of the Column E, and eight Parts of another Diameter ; of which the Column, between B and C, takes eight Diameters, and the Entablature, between C and D, takes two Diameters more : The whole Altitude of the *Ionick* Order, between F and I, amounts to thirteen Diameters of

L

the

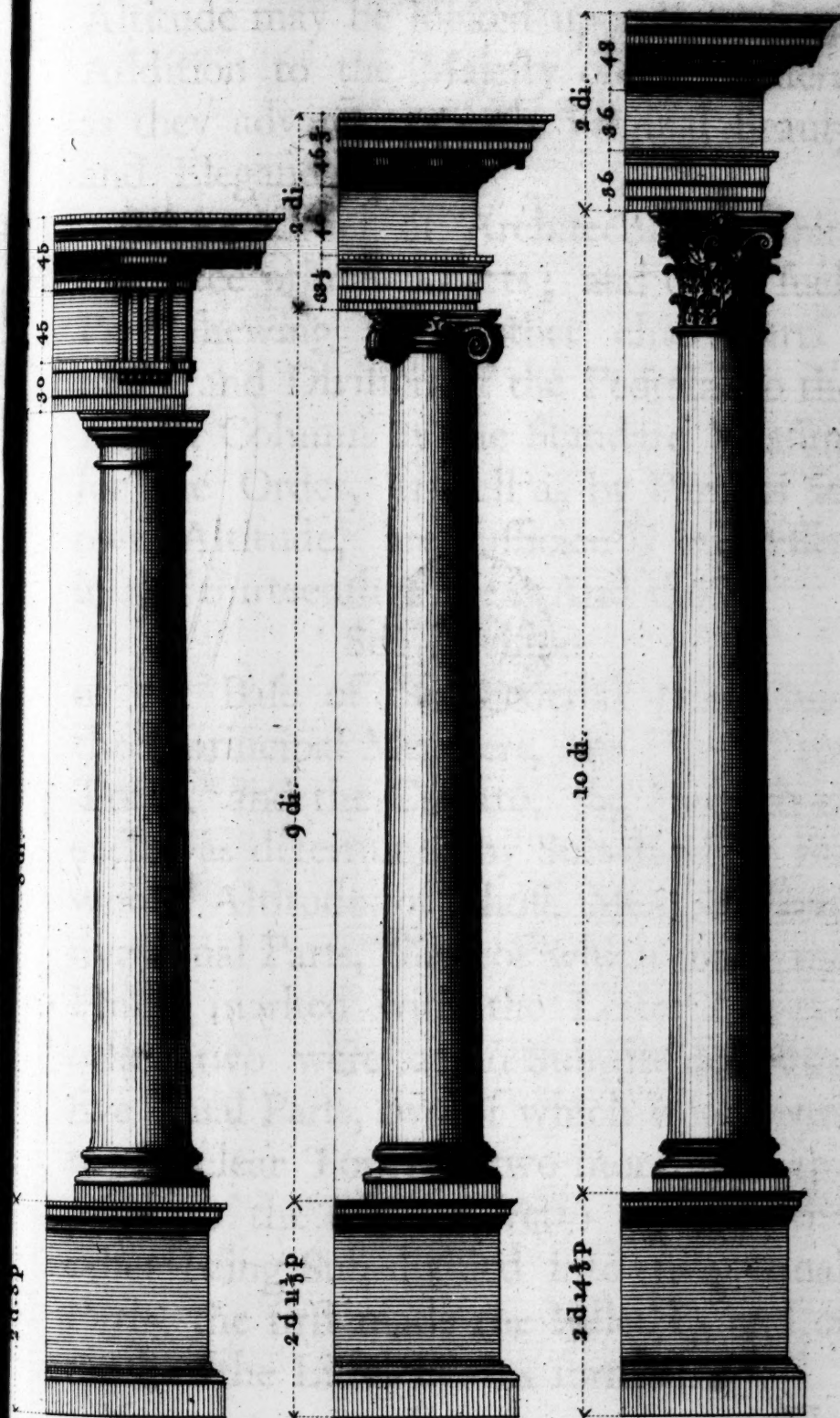


82 A DISSERTATION upon

the Shaft of the Column K, and eleven Parts, and a fifth of a Part, of another Diameter ; of which the Column, between G and H, takes nine Diameters, and the Entablature, between H and I, takes two Diameters more : And the whole Altitude of the *Corinthian* Order, between L and O, amounts to fourteen Diameters of the Column P, and fourteen Parts, and two fifths of a Part, of another Diameter ; of which the Column, between M and N, takes ten Diameters, and the Entablature, between N and O, takes two Diameters more.

The Orders of Architecture, thus compleat, are exhibited in Plate, Number XII, with Columns whose Shafts are of one and the same Diameter at Bottom, that the Delicacy and Stateliness of one entire Order above the other may become as visible by Inspection only, as the Delicacy and Stateliness of one Order of Columns above the other, appears to the Eye by the Samples exhibited in the second Plate : And the Pedestal augmenting from Order to Order with an Equal, but small Progression, that Increase of  
 Altitude

Plate, Number XII.



The Orders of Architecture  
With Columns of one and the same  
Diameter at Bottom.

Plate Number 21



The Oxford Architectural  
Library of the University of  
Oxford at Bodleian



## The ORDERS of COLUMNS. 83

Altitude may be looked upon as no small Addition to the Majesty of the Orders, as they advance towards Virginal Beauty and Elegance.

Every Order of Architecture exhibiting three principal Parts ; and every such Part shewing three other chief Parts ; this grand Division of the Pedestal to the *Dorick* Column by the Standard Measure for the Order, as well as by Parts of its own Altitude, are sufficiently expressed in the thirteenth Plate : And the

### Sub-Division

of the Base of this Pedestal being into three principal Members, the Plinth, the Torus, and the Cavetto, the Height of each was determined by Sub-dividing the whole Altitude of those Members into five equal Parts, three of which made the Plinth marked with the Letter A ; the other two were again Sub-divided into five equal Parts, two of which were given to the clear Torus B, two more were applied to the clear Cavetto E, and the other being Sub-divided into two equal Parts, the first made the Fillet C, and of the last the Listel D was formed.

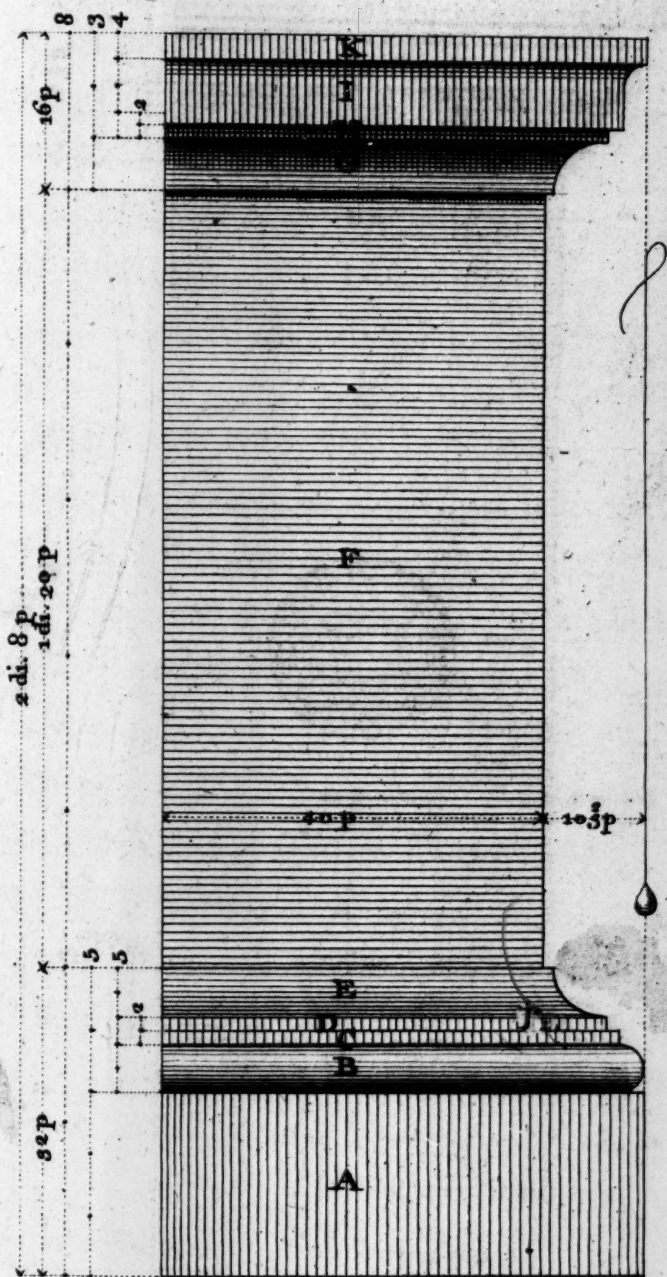
The Cornice was composed of two chief Members, the Cavetto, and the Corona ; and the whole Altitude of this Part of the Pedestal being first Sub-divided into three equal Parts, the clear Cavetto G, took one of them ; the Remainder were Sub-divided into four equal Parts, one of which was given to the Fillet K, and another having been again Sub-divided into two equal Parts, the Fillet H was composed of one of them, while the other, together with two of the Parts in the second Sub-Division of the Cornice, were appropriated to the clear Corona I.

The Base and Cornice had one and the same Projection before the Dado, or Body of the Pedestal, marked with the Letter F ; and this was just equal to a third Part of the Heighth of the Base.

The fourteenth Plate exhibiting the Profile of the proper Pedestal to the *Ionick* Order of Architecture, the  
Sub-Division

of the Base appears to have been into three principal Members, the Plinth, the Torus, and the Cimaſium ; and the Altitude of each of them was determined  
by

Plate, Number XIII.



The PROFILE of  
The Proper Pedestal to the Dorick  
Order of Architecture.

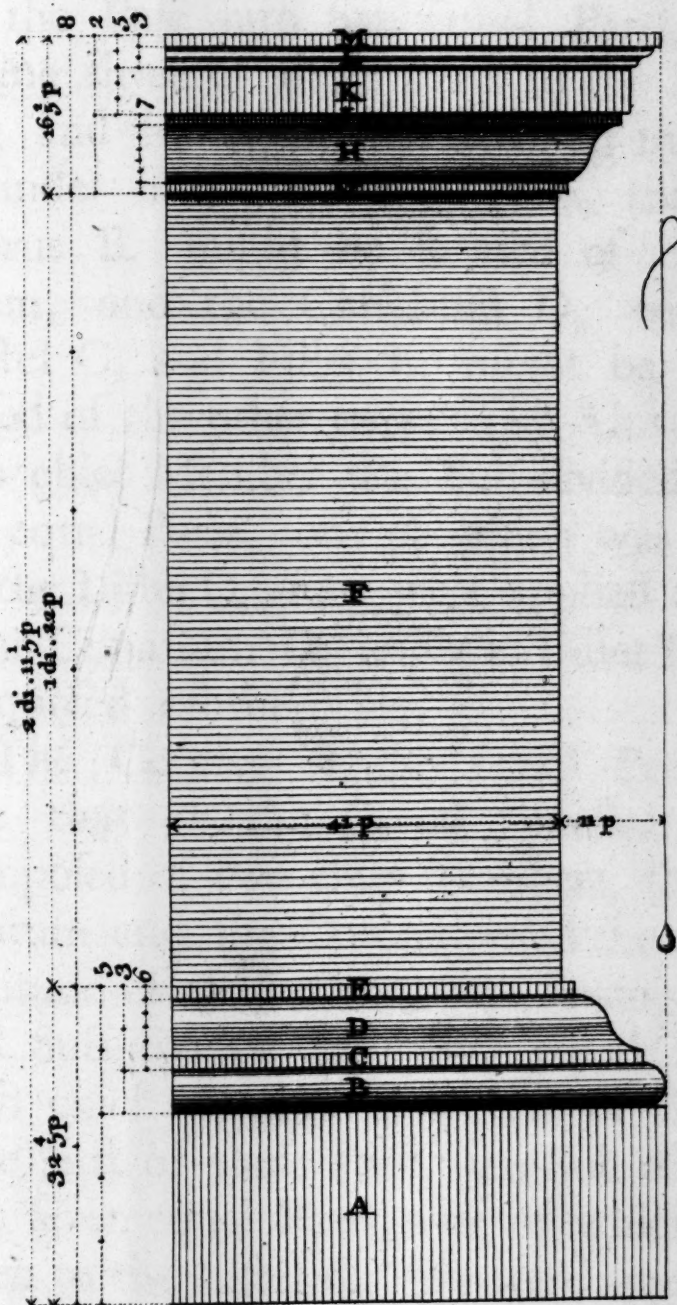


Plate Number XVII



THE PROCEEDINGS  
OF THE PROCEEDINGS  
OF THE PROCEEDINGS  
OF THE PROCEEDINGS

Plate, Number XIV.



The PROFILE of  
The Proper Pedestal to the Ionic  
Order of Architecture .



The Proper Index to the Journal  
Order of Architecture



by first Sub-dividing the whole Height of the Base into five equal Parts, and giving three of those Parts to the Plinth A; and by again Sub-dividing the Remainder into three equal Parts, that the Torus B, might be formed of one of them, and the Cimaſium D, with its Liſtel C, and Fillet E, might be composed of the other two: The Altitude of this chief Member was Sub-divided into six equal Parts, one of which was given to the Liſtel C, four were applied to the clear Cimaſium D, and the Fillet E was composed of the other.

The Cornice of the *Ionick* Pedestal, like that of the *Dorick* Pedestal, was composed of two chief Members, the Cimaſium and the Corona; and the whole Altitude of these Ornaments having been first Sub-divided into two equal Parts, each chief Member took one of them: The first of these Parts was Sub-divided into seven equal Parts, one of which was given to the Liſtel G, five were appropriated to the clear Cimaſium H, and one was applied to the Fillet I; and the second Part of the first Sub-division having

ing been Sub-divided into five equal Parts, the clear Corona K, was composed of three of them ; while the Remainder were again Sub-divided into three equal Parts, of two of which the Cimaſium L, was composed, and the laſt was applied for a Fillet to it ; this collateral Member being diſtinguiſhed by the Letter M.

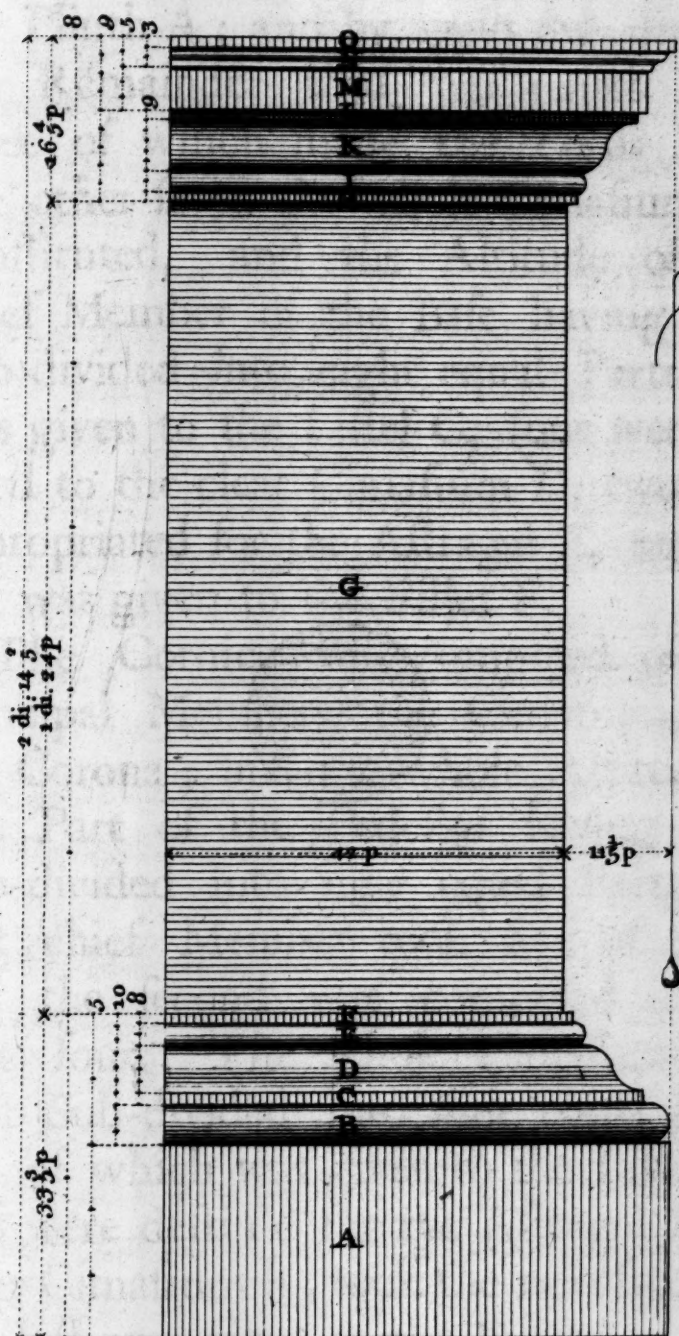
The Baſe and Cornice had one and the ſame Projection before the Dado, or Body of the Peđeſtal, marked with the Letter F, and this was juſt equal to a third Part of the Height of the Baſe, or to two Thirds of that of the Cornice, notwithſtanding I have, in the Profile, Plate Number XIV, made it a Trifle more to avoid Fractions.

Plate, Number XV, exhibits the Profile of the proper Peđeſtal to the *Corinthian* Order of Architecture ; and the

#### Sub-Division

of the Baſe having been into three chief Members, the Plinth, the Torus, and the Cimaſium ; the Altitude of each Member was determined by firſt Sub-dividing the whole Height of the Baſe into five equal Parts, and giving three of thoſe Parts to the

## Plate, Number XV.



The PROFILE of  
The Proper Pedestal to the Corinthian  
Order of Architecture.





The ORDERS of COLUMNS. 87

the Plinth A ; and by again Sub-dividing the Remainder into ten equal Parts, three of which made the Torus B, of the other seven the whole Cimaſium was conſtituted, and the Altitude of this chief Member of the Baſe having been Sub-divided into eight equal Parts, one was given to the Liſtel C, four were applied to the clear Cimaſium D, two were appropriated for the Aſtragal E, and the laſt was given to the Fillet F.

The Cornice was compoſed of two principal Members, the Cimaſium, and the Corona ; and the whole Altitude of this Part of the Peđeſtal having been Sub-divided into nine equal Parts, the firſt chief Member took five of them, and the ſecond was compoſed of the other four. The whole Cimaſium was next Sub-divided into nine equal Parts, one of which was given to the Liſtel H, two were deſtin'd for the Aſtragal I, the clear Cimaſium K, took the next five, and the laſt was given to the Fillet L : And the whole Corona having been firſt Sub-divided into five equal Parts, the plain Face of that Member, as marked with  
the

A DISSERTATION upon  
the Letter M, took three of them; the  
Remainder were again Sub-divided into  
three equal Parts, and the Cimafrum N,  
taking two of them, the other was given  
to its Fillet, O.

The Base and Cornice of the *Corinthian* Pedestal had one and the same Projection before the Dado, or Body of that Appendage, marked with the Letter G; and this, as in the Pedestals of the other Orders, was just equal to a third Part of the Height of the Base, or to two Thirds of that of the Cornice.

Such were the *Dorick*, *Ionick* and *Corinthian* Orders of Architecture when each was executed, by the Antients, in its Richest Dress, and Ultimate Perfection: I mean with respect to the Number of Parts, and their general Form: For in Regard to Ornament, almost every Member was so luxuriously adorned with Inrichments resembling the Flowers, Fruits, and other Things made Use of at publick Festivals, that the Parts of the Orders became Historical Representations of the greatest Part of their Religion and Learning; and these were performed by the ablest



The ORDERS of COLUMNS. 89

ablest Carvers of all Antiquity ; the Sculptors Art shining as eminently in the Representation of a single Flower of the Field, as in that of a Human Body, each Original having a Perfection in it, which the Ability of Man can never attain.

Of the ORDERS of COLUMNS, with their CROWNING ORNAMENTS, as they were Executed in their PLAINEST DRESS.

GREECE was the first Country wherein the primitive Orders of Architecture were Executed with a Simplicity peculiar only to such Works, from which the Orders themselves might have been deduced ; and therefore as the *Grecians* of *Achaia* appear to have Executed the *Dorick* Order of Columns, with their Crowning Ornaments ; and as the *Grecians* of *Attica* seem to have Executed the like Parts of the other Orders, I have represented them in the Sixteenth Plate : But to the Orders thus Executed, the *Grecians* prefixed no Names ; though they had Pillars that bore the Title of the *Attick* Order, the Shafts of which

M

were

90      A DISSERTATION upon  
were Quadrangular, and the Bases were  
of the *Dorick* Kind as represented in the  
Third Plate.

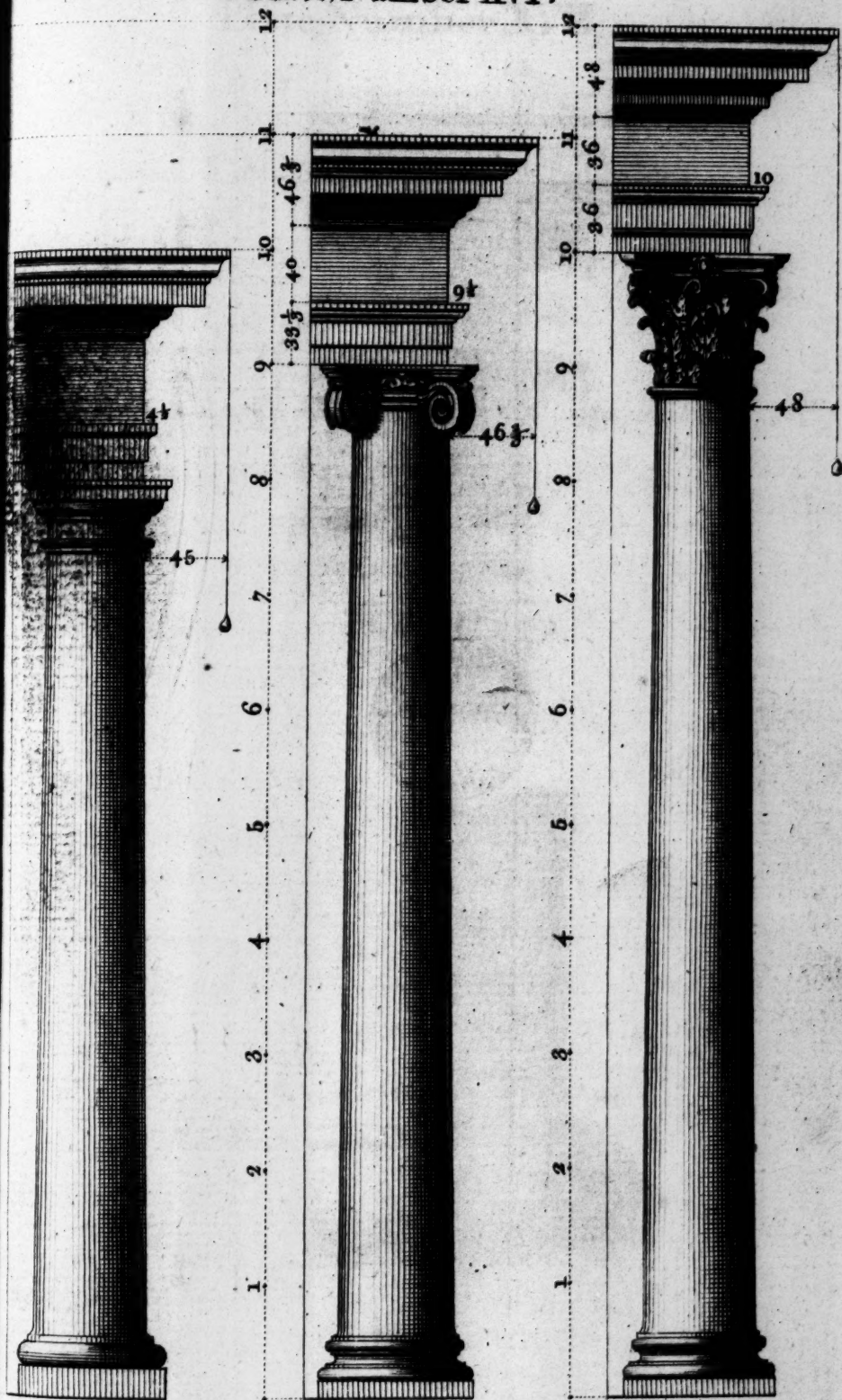
The *Ionians* in *Asia* were the first that  
followed the *Achaians* in the Execution  
of the plain *Dorick* Order; and the *Tus-*  
*cans* of *Italy* pursuing their Example in  
all the Capital Structures that were erect-  
ed in *Tuscany*, from thence these plain  
Columns, and their Crowning Ornaments,  
took the Title of the *Tuscan* Order.

Plate, Number XVII, contains the  
Profile of the Base, Capital and extreme  
Ends of the Shaft of the *Tuscan*, or ra-  
ther the plain *Dorick* Column; and the  
Sub-Division

of the Base, in Respect to its principal  
Parts, was into two Capital Members,  
the Plinth, and the Torus: But in Re-  
gard to its Altitude, it was Sub-divided  
into fifteen equal Parts, eight of which  
made the Square Plinth, marked with the  
Letter A; and the remaining seven were  
given to the Torus B.

The Altitude of the whole Bandage at  
the Bottom of the Shaft of the plain *Do-*  
*rick* Column, amounting to a twelfth Part

Plate, Number XVI.



A Plain Column of every Order;  
And each Shaft being of the same Diameter,  
Is Crowned with a plain Entablature.





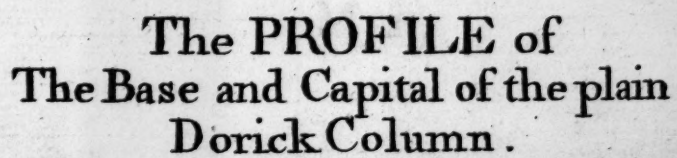


Plate Number 211



The Province of  
The Base and Capital of the plain  
Dutch Colony



The ORDERS of COLUMNS. 91

of the whole Diameter, was Sub-divided into five equal Parts, two of which made the flat Listel C, and the other made the Cavetto that united it to the Bottom of the Shaft at D: And the Altitude of the whole Bandage at the Top of the Shaft of the same Column, amounting to seven Parts of the sixty contained in the Diameter below, those equal Parts being looked upon as Sub-Divisions, two of them made the Cavetto that united the flat Fillet G, to the Top of the Shaft at E; and the other five being again Sub-divided into three equal Parts, one was given to the Fillet G, and the other two made its Astragal H.

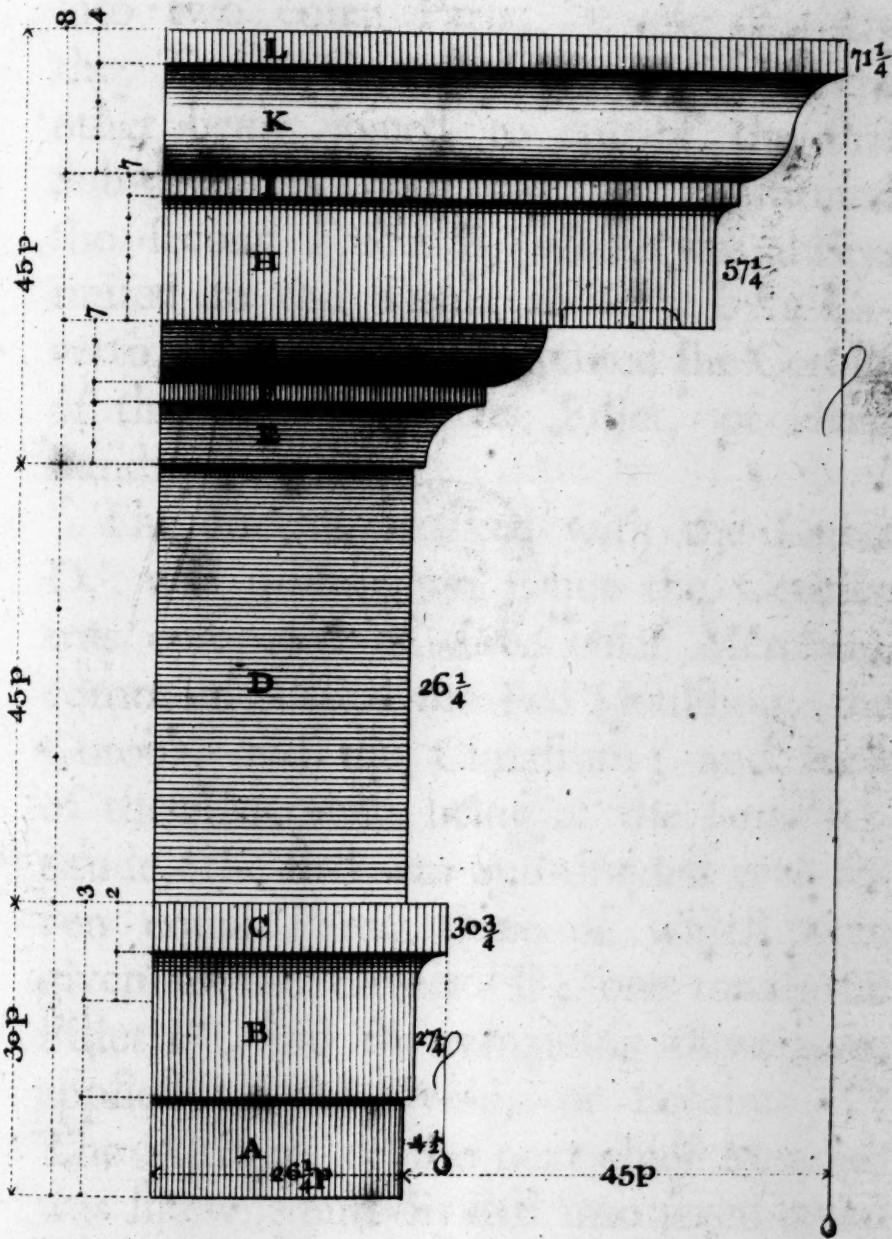
The Capital of this plain Column being composed of three principal Parts, the Collarino, the Echinus, and the Abacus, the whole Altitude of it was therefore Sub-divided into three equal Parts, and one of those Parts was given to each chief Member. The Collarino I, was united to the Annulet of the Echinus by the Cavetto F; and the second Sub-division of the Capital having been again Sub-divided into six equal Parts, the An-

nulet K, was composed of the first of them, and the Remaining five made the clear Echinus L ; this Member was Circular, but the Abacus was always Quadrangular, with strait Sides, and being Sub-divided into four equal Parts, three of those Parts were given to the Corona M, and the other made its Fillet, or Head Band, marked with the Letter N, a Cavetto uniting the Sub-divided Members of this Crowning Ornament of the whole Column together.

The Eighteenth Plate exhibits the Profile of the Entablature to the plain *Doric* Column ; and therein the grand Division of those Ornaments by Parts of the Standard Measure for the Order, as well as by Parts of their own Altitude, will appear to be the very same with those of the full Dressed Entablature in the Eighth Plate ; and the

Sub-Division

of the Architrave being into three principal Members, the Height of each of them is determined by first Sub-dividing the whole Altitude of those Members into three equal Parts, and giving one of those



The PROFILE of  
The Entablature to the plain  
Dorick Column.



W. X. 1000



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those Parts to the first Fascia B ; another of these Parts being again Sub-divided into two equal Parts, of one of them the Tænia C was formed ; and the other being joined to one of the first Sub-divisions, both together constituted the second Fascia B, which was always united to the Tænia above it by a Cavetto, like that which united the Corona of the Capital to its Fillet, or Head Band.

The Freeze, marked with the Letter D, was quite plain ; but the Cornice was composed of three chief Members, commonly called the Bed Moulding, the Corona, and the Cimaſium ; and each of these Members being of the ſame Altitude, the firſt was Sub-divided into ſeven equal Parts, three of which were given to the Cavetto E ; one made the Fillet F ; and the remaining three were applied to the Ovolo, or Echinus G : The Altitude of the next chief Member was likewiſe Sub-divided into ſeven equal Parts, and the clear Part of the Corona H, taking fix of them, its Fillet, I, was composed of the other, both being united  
gether

together by a Cavetto: And the Altitude of the last chief Member having been Sub-divided into four equal Parts, the clear Cimaſium K, was formed of three of them; and the laſt was applied for a Fillet to it, the Letter L pointing out the ſecondary Member.

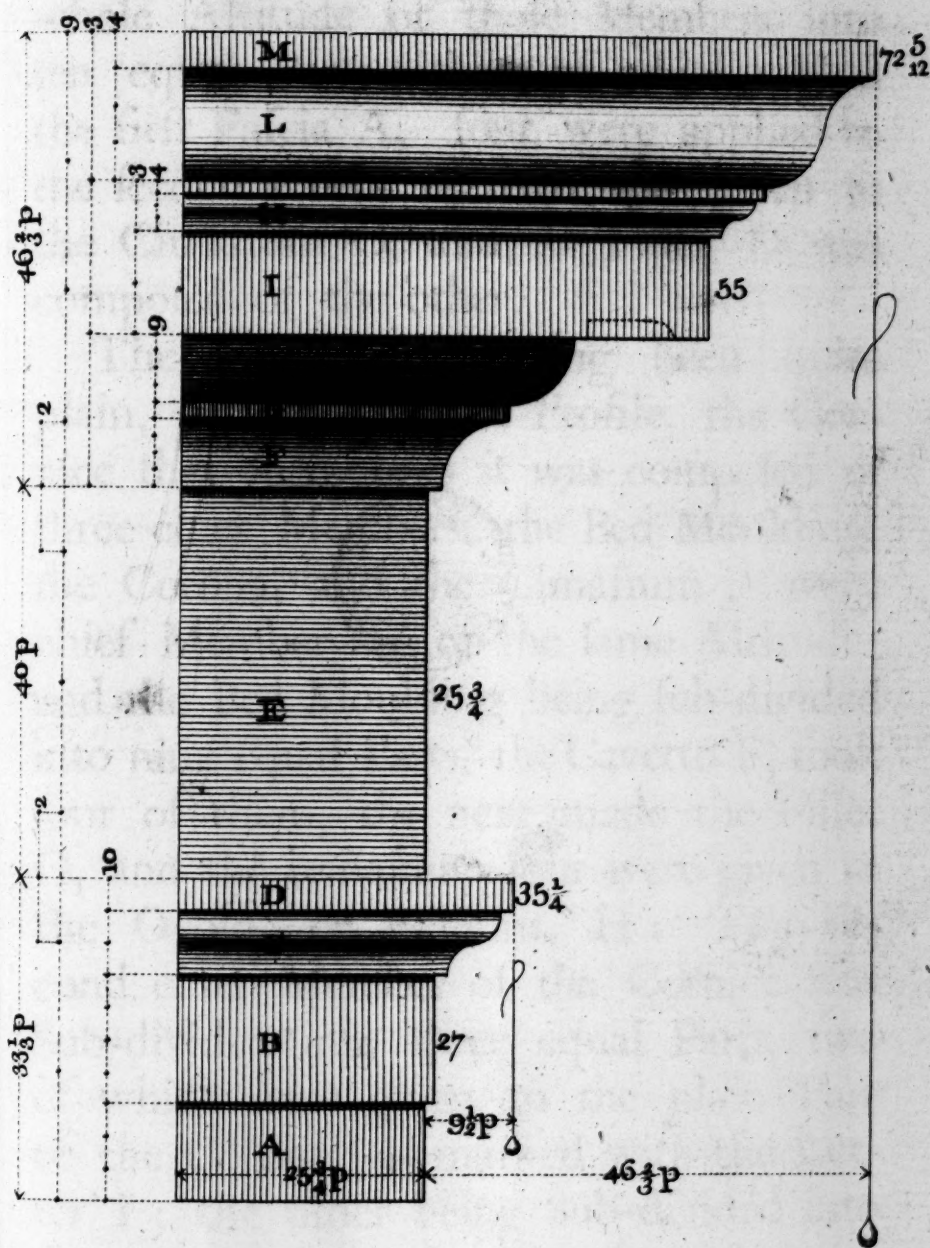
The Projection of this Cornice is juſt equal to its Altitude; and the Soſit of the Corona being commonly revealed according to the dotted Line in the Profile, the internal Side of the Channel makes a proper Fillet to the Ovolo beneath it.

Plate, Number XIX, contains the Profile of an Entablature applicable to the *Ionick* Column, let the Shaft be ſet upon its proper Baſe, or upon that which bore the Name of the *Attick* Baſe; the grand Diviſion of thoſe Ornaments by Parts of the Standard Meaſure for the Order, as well as by Parts of their own Altitude, will appear to be the very ſame with thoſe of the full Dressed Entablature in the Ninth Plate; and the

#### Sub-Diviſion

of the Architrave being into three principal Members, the Heighth of each of them





The PROFILE of  
AnEntablature applicable to the  
Ionick Column.



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them is determined by Sub-dividing the whole Altitude of those Members into ten equal Parts ; three of which makes the first Fascia A, four were applied to the second Fascia B, two were given to the Cimaſium C, and its Fillet D was composed of the other.

The Freeze, E, having been quite plain, as in the former Profile, the Cornice that ſurmounds it was composed of three chief Members, the Bed Moulding, the Corona, and the Cimaſium ; every chief Member was of the ſame Altitude; and the Bed Moulding being ſub-divided into nine equal Parts, the Cavetto F, took four of them, the next made the Fillet G, and the remaining four were given to the Ovolo, or Echinus, H : The ſecond chief Member of the Cornice was Sub-divided into three equal Parts, two of which were given to the plain Part of the Corona, as marked with the Letter I ; the other being Sub-divided into four equal Parts, the Cimaſium K, was formed of the firſt three, the other was applied for a Fillet to it : And the laſt chief Member being likewise Sub-divided

ed



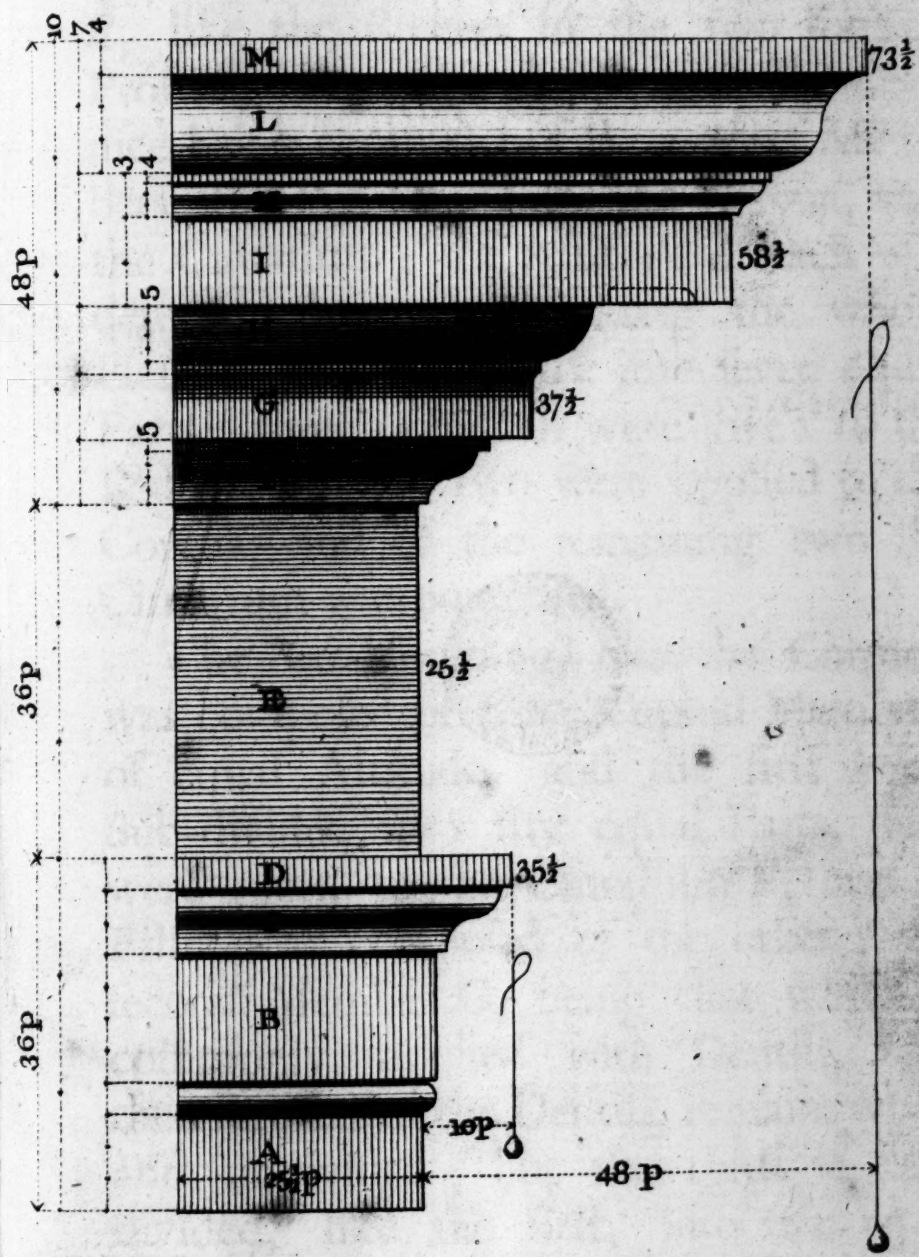
ed into four equal Parts, the Cimaſium L, was formed of three of them, and its Fillet M, was composed of the other.

The Twentieth, and next Plate, exhibits the Profile of an Entablature applicable to the *Corinthian* Column, whether the Shaft be ſet upon its proper Baſe, or the Baſe to which the Name of *Attick* was prefixed; the Grand Diviſion of thoſe Ornaments by Parts of the Standard Meaſure for the Order, as well as by Parts of their own Altitude, will appear to be the very ſame with thoſe of the full Dressed Entablature in the Tenth Plate; and the Sub-Diviſion

of the Architrave being into three principal Members, the Altitude of each of them, as well as of their ſecondary Ornaments, is determined by Sub-dividing the whole Height of thoſe Members into eleven equal Parts; three of which makes the firſt Fascia A, one Conſtitutes the Aſtragal to it, the next four were given to the ſecond Fascia B, the Cimaſium C was formed of two of the ſame Parts, and its Fillet D was composed of the laſt Part in the whole Sub-diviſion.

The

# Plate, Number XX.



The PROFILE of  
AnEntablature applicable to the  
Corinthian Column.





The Freeze, marked with the Letter E, like the Freezes in the two former Profiles, was quite plain ; and the Cornice being composed of three chief Members, the Bed Moulding, the Corona, and the Cimaſium ; the Altitude of each was determined by Sub-dividing the whole Height of the Cornice into ſeven equal Parts ; three of which were given to the Bed Moulding ; two were applied to the Corona, and of the remaining two the Cimaſium was composed.

The Bed Moulding, like the Cornice, was composed of three Capital Members, of equal Altitude, and the firſt being Sub-divided into five equal Parts, four were given to the Cimaſium F, and its Fillet was composed of the other ; the ſecond Member G, being that which is commonly enriched with Dentils, and therefore called the Dentils, remains whole and undivided ; but the third is Sub-divided, like the firſt, into five equal Parts, four of which making the Ovolo, or Echinus H, the other was given for a Liſtel to it : The Corona was firſt Sub-divided into three equal Parts, and the

98 A DISSERTATION upon  
plain Face of that Capital Member, as  
marked with the Letter I, taking two of  
them, the other was Sub-divided into four  
equal Parts, three of which being given  
to the Cimaſium K, its Fillet took the  
other: And the laſt chief Member of the  
Cornice being Sub-divided into four equal  
Parts, the Cimaſium L was conſtituted  
of the firſt three, and the fourth, making  
a Fillet to it, is marked with the Let-  
ter M.

Of the PRIMITIVE PEDESTALS as they  
were firſt ORNAMENTED and APPLIED to the  
ORDERS of COLUMNS.

**S**OLOMON's Brazen Baſes, or Sup-  
porters, to the Lavers which were  
placed before the Front of his Temple at  
*Jeruſalem*, having proved a Sample for  
Ornamenting the primitive Pedeaſtals of the  
Antients, as well as for aſcertaining the  
Proportion of the Bodies of this Appen-  
dage to the Orders of Columns; and the  
Length of every Side of the Body of  
each Pedeaſtal having been determined by  
that of the Foot of the Column, with  
which it exactly agreed; the *Grecians*,  
by

by applying the *Attick* Base to the Shafts of the Columns of every Order, made the Pedestal of every such Order of one and the same Altitude, whether the Column was Inriched, or whether it was Executed in its plainest Dress.

When the Columns with *Attick* Bases were Inriched, the Breadth of each Side of the Body of the Pedestal amounted to one Diameter of the Shaft of the Column of every Order, taken at Bottom, and to a third Part of another Diameter; and the Altitude of this Part of the Pedestal being just equal to one Diameter of the Column, the whole Superficies forms a Figure of a perfect Square and a third; or one whose Heighth is to its Breadth, as three is to four.

This was the Figure in which every Side of the Body of one of *Solomon's* Brazen Bases presented itself; and the great *Pythagoras*, meditating upon it, and the progression Numbers three, four, and five, at length DISCOVERED that the Superficies of a Square formed upon the Diagonal Line, was equal to the Superficies of a Square formed upon the Base



Line, added to another formed upon the Perpendicular Line : A DISCOVERY of Universal Use to Mankind : And the Numbers on which it was Founded furnishes Artificers with the surest and quickest Mechanical Method to find out the Right Angle in all their Works ; but Workmen have, hitherto, been so ignorant, or negligent of it, that the Walls of our Buildings, private Houses especially, seldom appear at Right Angles with one another.

The Antients divided the Altitude of the Bodies of their primitive Pedestals, when applied to Inrich'd Columns set upon *Attick* Bases, into four equal Parts ; two of which, amounting to thirty Parts of the Standard Measure for the Order, determined the Height of the Base ; and that of the Cornice was ascertained by one of them, amounting to fifteen Parts of the same Standard Measure : This increased the Altitude of the whole Pedestal to one Diameter of the Column, at Bottom, and forty five Parts of the sixty contained in another Diameter : And it made the first Sub-division of this Appendix

pendage amount to seven equal Parts, as the same is expressed in the Profile, Plate Number XXI.

But when the Antients applied their primitive Pedestals to Columns in their plainest Dress, they divided the Altitude of the Body of each Pedestal into no more than three equal Parts; two of which, amounting to forty Parts of the Standard Measure for the Order, determined the Heighth of the Base; and that of the Cornice was ascertained by one of them, amounting to twenty Parts of the same Standard Measure: This increased the Altitude of the whole Pedestal to two Diameters of the Column at Bottom: It gave the Appendage a strong Massive Look: And it lessened the Number of Parts in the first Sub-division of the Pedestal, and reduced them to six, as in the Profile, Plate, Number XXII.

Besides these primitive Pedestals, Ornamented as in the Profiles, the Antients seem to have had another Sort common to every Order, when the Shafts of the Columns were placed upon the *Attick* Base; the Bodies of which were perfect Cubes;

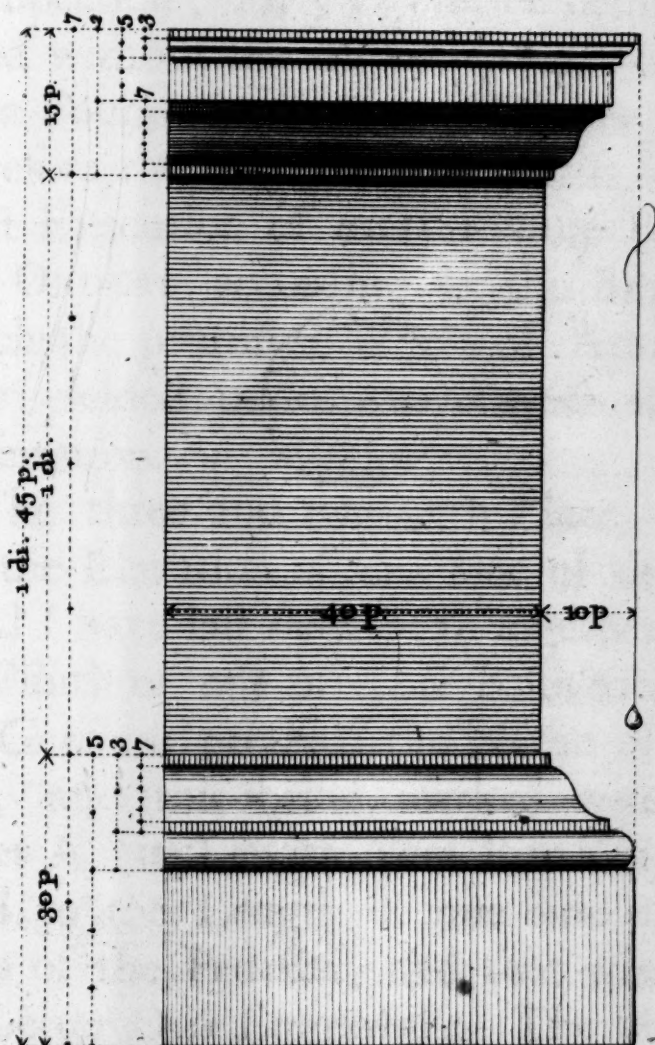
Cubes: And the Altitude of one of those Cubes having been divided into five equal Parts, the Height of the Base was made equal to two of those Parts, amounting to thirty two Parts of the Standard Measure for the Order; and that of the Cornice was determined by another of the like Parts, amounting to sixteen Parts of the same Standard Measure.

This raised the whole Pedestal to an Altitude equal to two Diameters of the Shaft of the Column at Bottom, and to eight Parts of the Sixty contained in another Diameter; and it made the first Sub-division of this Appendage amount to eight equal Parts, as in the Pedestals proper to every Order.

The Base of this Pedestal was Sub-divided into three equal Parts, two of which were applied to the Plinth, and the other was given to the Mouldings: These had less Altitude than in any other Pedestal; but their Projection was the same in respect to the Height of the Base; and their Decrease of Altitude seems to have arose from the *Optick* Appearance of the Work wherein they were Executed.



Plate, Number XXI.



The Profile of a primitive Pedestal  
As it was first Ornamented and applied to every  
Enrich'd Order of Columns with Attick Bases.



The ORDERS of COLUMNS. 103

The same Appearance induced some of the Antient Architects to make little Variations in many Parts of the Orders; though such Liberties should never be taken but with great Caution and Circumspection: They cannot be communicated without the utmost Danger of laying a Foundation for fatal Mistakes: And therefore the least Error will arise from a strict Execution of every minute Part of the ORDERS according to the SAMPLES which the primitive Works of Antiquity have yielded us for the Subject of this Dissertation.

The three and twentieth Plate, exhibits the Elevation of one Side of the Pedestal I have last described, together with the Plinth of one of those Bases to which the *Grecians* prefixed the Name of *Attick*; and this being marked with the Letter A, its Length from B to C is just equal to the Length of one Side of the Dado of the Pedestal, and that whereon the Letter D is Engraved: The Base of this Appendage is marked with the Letter E; the Cornice appears with the Letter F upon it: And the Works of Antiquity



104 A DISSERTATION, &c.

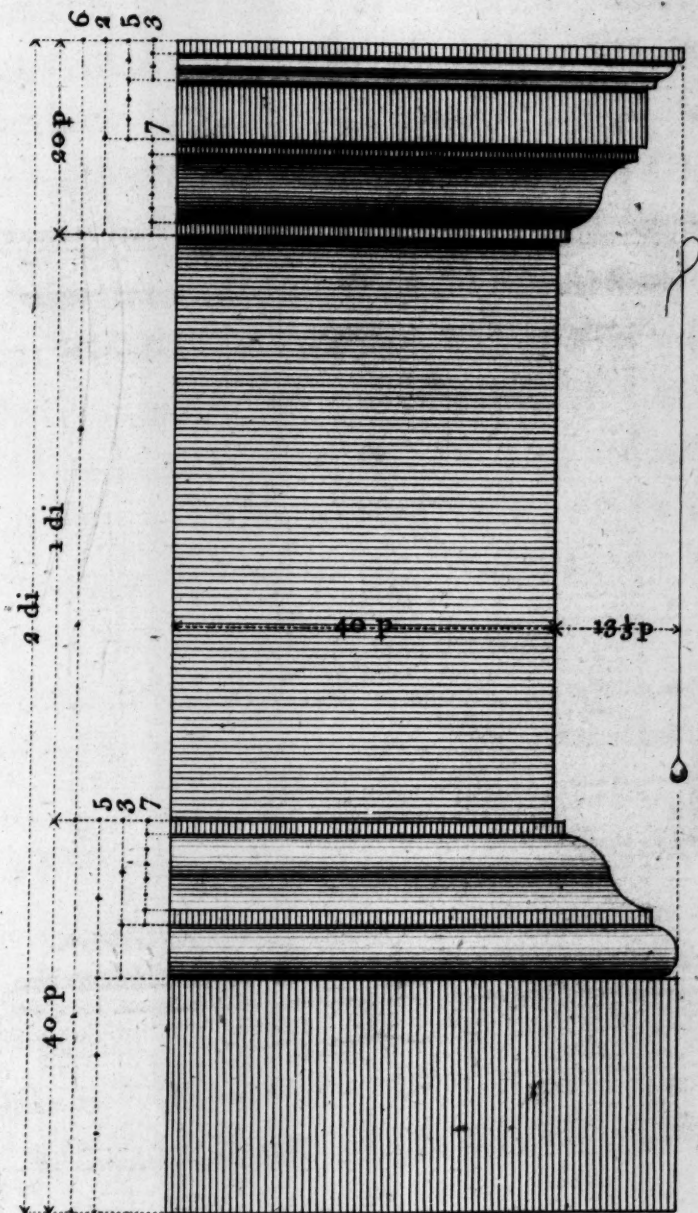
quity will sufficiently demonstrate that this very Kind of Pedestal was common to every Order of Columns, but not the proper Appendage to any Order when it shined in its Richest Dress, and Ultimate Perfection.

The same Works will likewise shew that the Shape of this Kind of Pedestal is such as, by proper Changes in the Proportion, will produce almost every Kind of Pier, or dwarf Pillar, that hath been made Use of in the Construction of the finest Edifices the Politest Nation of the Earth hath been yet adorned with.

OCTOBER the 12th, MDCCXLIII.



Plate, Number XXII.



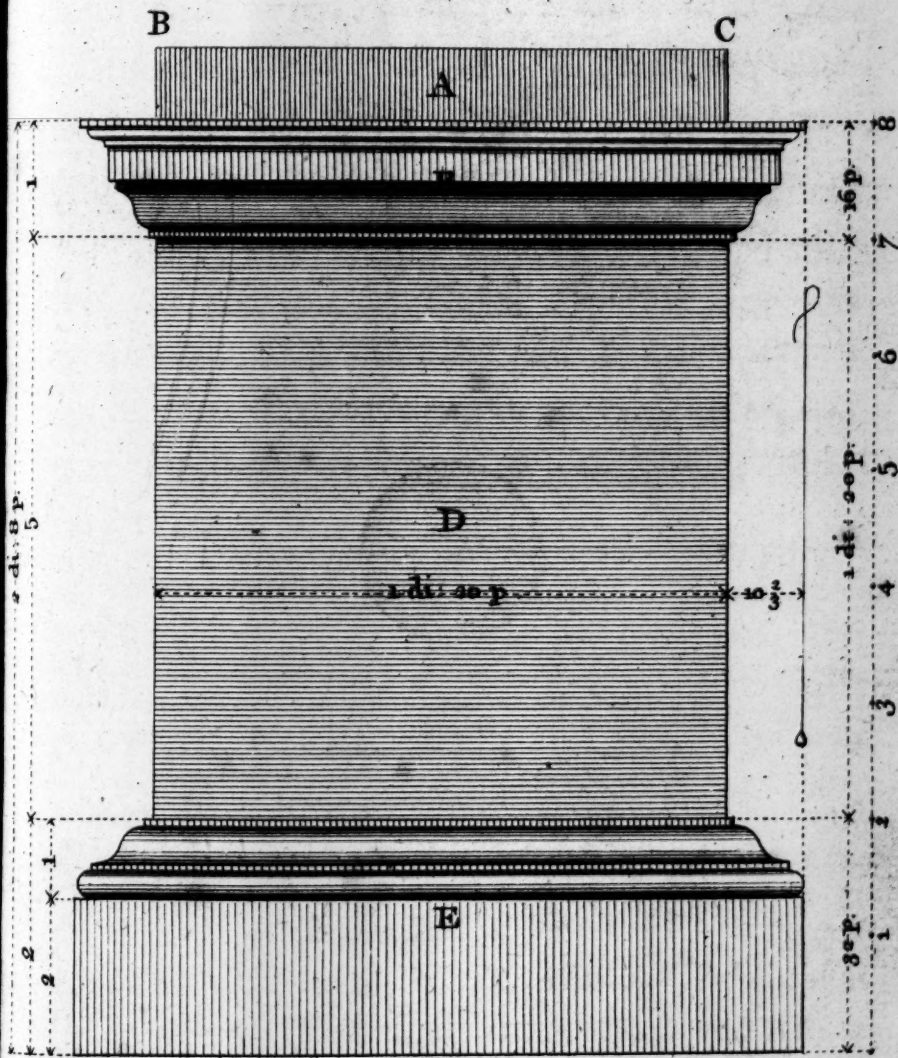
The Profile of a primitive Pedestal  
 as it was first Ornamented and applied to every  
 Plain Order of Columns.



Black Hills of America  
It was first discovered and named  
John G. Smith of Colorado



Plate, Number XXIII.



The ELEVATION of  
One Side of a PEDESTAL common to every  
ORDER of COLUMNS .

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*[Faint, illegible handwriting, possibly bleed-through from the reverse side]*